

Bidding Document

Design and Build Contract for the Design and Construction of PNR South Long Haul Project (Package 1, Banlic to Daraga)

Department of Transportation

Republic of the Philippines

Reference No: PB No. 21-088-4

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Section I. Invitation to Bid

*The Department of Transportation
of the Republic of the Philippines*

**Invitation to Bid for Design and Build Contract of PNR South Long Haul
Project (Contract Package 1 - Banlic to Daraga)**

1. The Department of Transportation of the Republic of the Philippines, intends to apply a loan to People's Republic of China amounting to PHP 142.481 Billion being the Approved Budget of the Contract (ABC) to payments under the Design and Build Contract for PNR South Long Haul Project (Package 1, Banlic to Daraga, with reference No.: **PB No. 21-088-4**). Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The Department of Transportation of the Republic of the Philippines now invites bids for the detailed design and construction of the PNR South Long Haul Project Package 1(hereinafter referred to as "PNR-SLH CP01"), Completion of the Works is required within 36 months. Bidders should have completed a contract similar to the Project within the last twenty (20) years. The description of an eligible bidder is contained in the Bidding Documents, particularly, in **Section II. Instructions to Bidders**.
3. Bidding will be conducted through **Limited Competitive Bidding** procedures using non-discretionary "pass/fail" criterion as specified in the 2016 Revised Implementing Rules and Regulations (IRR) of Republic Act No. 9184(RA 9184), otherwise known as the "Government Procurement Reform Act.", as modified by Government of the Philippines (GOP)-Government of the People's Republic of China (GPRC) Executive Agreements. For the detailed evaluation of the proposals, a two-step procedure shall be adopted by the Special Bids and Awards Committee (SBAC) for the PNR-SLH CP01. Only those bids that passed the technical proposals criteria shall be subjected to the second step of evaluation or the opening of financial proposals.
4. Bidders shortlisted by the Government of the People's Republic of China may obtain further information from the Department of Transportation and inspect the Bidding Documents at the address given below from 9:00am to 5:00pm.
5. A complete set of Bidding Documents may be acquired by shortlisted bidders on **04 June 2021** from the address below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Pesos 75,000(Pesos Seventy-Five Thousand).

Bids and Awards Committee IV
Procurement Service - DBM
R.R. Road Cristobal St., Paco, Manila

It may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

6. The Department of Transportation will hold a Pre-Bid Conference on **10:00 AM, 11 June 2021** at **PS Conference Rooms, 2F Procurement Service - DBM, Paco, Manila**, which shall be limited to the shortlisted bidders.
7. Bids must be duly received by the Bids and Awards Committee (BAC) Secretariat at the address below on or before **10:00AM, 25 June 2021**. All bids must be accompanied by a Bid Security in any of the acceptable forms and in the amount stated in Instructions to Bidder (ITB) Clause 18.

Bid opening shall be conducted immediately after the deadline for submission of bids at **PS Conference Rooms, Procurement Service, Paco, Manila**. Bids will be opened in the presence of the bidders' representatives who choose to attend at the address below. Late bids shall not be accepted.

Bids and Awards Committee IV Bid Box
Procurement Service
RR Road, Cristobal St., Paco, Manila

8. The Department of Transportation of the Republic of the Philippines reserves the right to reject any or all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.
9. For further information, please refer to:

Bids and Awards Committee IV
Procurement Service
Ps Complex, RR Road, Cristobal Street
Paco, Manila
Contact details: (632)8-689-7750
Email address: bac4_slh@ps-philgeps.gov.ph

(SGD)
JOSEPH CONRAD D. DUEÑAS
Chairperson

Section II. Instructions to Bidders

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A. General

1. Scope of Bid

- 1.1. The Procuring Entity named in the Bid Data Sheet(**BDS**), shall select an eligible bid (cooperative, partnership, corporation, consortium or a joint venture)(hereinafter referred to as "DB Contractor") from among those shortlisted bidders for the design and construction of the South Long Haul Project (Package I from Banlic Station to Daraga Station), as per **Section VI. Employer's Requirements**, in accordance with the evaluation procedure specified in the **BDS**.
- 1.2. The name, identification, and number of lots specific to this bidding are provided in the **BDS**. The contracting strategy and basis of evaluation of lots is described in **ITB** Clause 28.
- 1.3. The successful Bidder will be expected to complete the Works by the intended completion date specified in Clause 1.1.3.3 of the Contract Data of Part A of Section V. Particular Conditions.

2. Source of Funds

The Procuring Entity has a budget or received funds from the Funding Source named in the **BDS**, and in the amount indicated in the **BDS**. It intends to apply part or the whole of the funds received for the SLH Project, as defined in the **BDS**, to cover eligible payments under the Contract for the Works.

3. Corrupt, Fraudulent, Collusive, Coercive and Obstructive Practices

- 3.1. Unless otherwise specified in the **BDS**, the Procuring Entity, as well as bidders and contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. In pursuance of this policy, the Funding Source:
 - (a) defines, for purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means behavior on the part of officials in the public or private sectors by which they improperly and unlawfully enrich themselves, others, or induce others to do so, by misusing the position in which they are placed, and includes the offering, giving, receiving, or soliciting of anything of value to influence the action of any such official in the

procurement process or in contract execution; entering, on behalf of the Procuring Entity, into any contract or transaction manifestly and grossly disadvantageous to the same, whether or not the public officer profited or will profit thereby, and similar acts as provided in Republic Act 3019;

- (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Entity, and includes collusive practices among Bidders (prior to or after Bid submission) designed to establish bid prices at artificial, non-competitive levels and to deprive the Procuring Entity of the benefits of free and open competition;
- (iii) "collusive practices" means a scheme or arrangement between two or more Bidders, with or without the knowledge of the Procuring Entity, designed to establish bid prices at artificial, non-competitive levels; and
- (iv) "coercive practices" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;
- (v) "obstructive practice" is
 - 1) deliberately destroying, falsifying, altering or concealing of evidence material to an administrative proceedings or investigation or making false statements to investigators in order to materially impede an administrative proceedings or investigation of the Procuring Entity or any foreign government/foreign or international financing institution into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the administrative proceedings or investigation or from pursuing such proceedings or investigation; or

- 2) acts intended to materially impede the exercise of the inspection and audit rights of the Procuring Entity or any foreign government/foreign or international financing institution herein.
 - (b) will reject a bid for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the Contract; and
 - (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded Contract funded by the Funding Source if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing or, or in executing, a Contract funded by the Funding Source.
- 3.2. Further, the Procuring Entity will seek to impose the maximum civil, administrative, and/or criminal penalties available under the applicable laws on individuals and organizations deemed to be involved in any of the practices mentioned in **ITB** Clause 3.1(a).
- 3.3. Furthermore, the Funding Source and the Procuring Entity reserve the right to inspect and audit records and accounts of a contractor in the bidding for and performance of a contract themselves or through independent auditors as reflected in the Particular Conditions Sub-Clause 1.15.

4. Conflict of Interest

- 4.1. All Bidders found to have conflicting interests shall be disqualified to participate in the procurement at hand, without prejudice to the imposition of appropriate administrative, civil, and criminal sanctions. A Bidder may be considered to have conflicting interests with another Bidder in any of the events described in paragraphs (a) through (c) and a general conflict of interest in any of the circumstances set out in paragraphs (d) through (h) below:
- (a) A Prospective, any Consortium Member, or any of their Affiliates (of either a Prospective Bidder or of the Consortium Member) is a member of another Consortium, or an Affiliate of a member of another Consortium.

A Prospective Bidder or any Consortium Member, has ownership interest of at least thirty-three and one third percent

(33%, 1/3) in any other Prospective Bidder or any Consortium Member of any other Prospective Bidder;

- (b) A Bidder receives or has received any direct or indirect subsidy from any other Bidder;
- (c) A Bidder has the same legal representative as that of another Bidder for purposes of this Bid;
- (d) A Prospective Bidder or any Consortium Member, has ownership interest of at least thirty-three and one third percent (33%, 1/3) in the Project Management Office (PMO) or the end-user unit and the project consultants.
- (e) A Bidder has a relationship, directly or through third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder or influence the decisions of the Procuring Entity regarding this bidding process;
- (f) A Bidder submits more than one bid in this bidding process. However, this does not limit the participation of subcontractors in more than one bid;
- (g) A Bidder who participated as a consultant in the preparation of the design or technical specifications of the goods and related services that are the subject of the bid; or
- (h) A Bidder who lends, or temporarily seconds, its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for or implementation of the project, if the personnel would be involved in any capacity on the same project.

4.2. In accordance with Section 47 of the IRR of RA 9184, all Bidding Documents shall be accompanied by a sworn affidavit of the Bidder that it is not related to the Head of the Procuring Entity (HoPE), members of the Bids and Awards Committee (BAC), members of the Technical Working Group (TWG), members of the BAC Secretariat by consanguinity or affinity up to the third civil degree. On the part of the Bidder, this Clause shall apply to the following persons:

- (a) If the Bidder is an individual or a sole proprietorship, to the Bidder himself;

- (b) If the Bidder is a partnership, to all its officers and members;
- (c) If the Bidder is a corporation, to all its officers, directors, and controlling stockholders;
- (d) If the Bidder is a cooperative, to all its officers, directors, and controlling shareholders or members; and
- (e) If the Bidder is a joint venture (JV) or a consortium, the provisions of items (a), (b), (c) or (d) of this Clause shall correspondingly apply to each of the members of the said JV/Consortium, as may be appropriate.

Relationship of the nature described above or failure to comply with this Clause will result in the automatic disqualification of a Bidder.

5. Eligible Bidders

- 5.1. Refer to the **BDS**.
- 5.2. Government owned or controlled corporations (GOCCs) may be eligible to participate the bidding.
- 5.3. (a) The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the Philippine Statistics Authority (PSA) consumer price index. However, contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.

(b) For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the **BDS**.

For this purpose, contracts similar to the Project shall be those described in the **BDS**.

- 5.4. The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, calculated as follows:

NFCC = [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

The values of the domestic bidder's current assets and current liabilities shall be based on the latest Audited Financial Statements (AFS) submitted to the BIR.

For purposes of computing the foreign bidders' NFCC, the value of the current assets and current liabilities shall be based on their audited financial statements prepared in accordance with international financial reporting standards.

6. Bidder's Responsibilities

- 6.1. The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in **Section IX-E. Omnibus Sworn Statement** as required in **ITB** Clause 12.1(b)(iv).
- 6.2. The Bidder is responsible for the following:
 - (a) Having taken steps to carefully examine all the Bidding Documents;
 - (b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;
 - (c) Having made an estimate of the facilities available and needed for the contract to be bid, if any;
 - (d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s as provided under **ITB** Clause 10.3.
 - (e) Ensuring that it is not "blacklisted" or barred from bidding by the Government of Philippines (GoP) or any of its agencies, offices, corporations, or local government units (LGUs), including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board (GPPB);
 - (f) Ensuring that each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the

original, complete, and all statements and information provided therein are true and correct;

- (g) Authorizing the HoPE or its duly authorized representative/s to verify all the documents submitted;
- (h) Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract, accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, whichever is applicable;
- (i) Complying with the disclosure provision under Section 47 of RA 9184 and its IRR in relation to other provisions of RA 3019;
- (j) Complying with existing labor laws and standards, in the case of procurement of services. Moreover, bidder undertakes to:
 - (i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable.

In case there is a finding by the Procuring Entity or the Department of Labor and Employment (DOLE) of underpayment or non-payment of workers' wage and wage-related benefits, bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.

- (ii) Comply with occupational safety and health standards and to correct deficiencies, if any.

In case of imminent danger, injury or death of the worker, bidder undertakes to suspend contract implementation pending clearance to proceed from the

Department of Labor and Employment (DOLE) Regional Office and to comply with Work Stoppage Order; and

(iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and

(k) Ensuring that it did not give or pay, directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the Procuring Entity;

Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

6.3. The Bidder, by the act of submitting its bid, shall be deemed to have inspected the site, determined the general characteristics of the contract works and the conditions for this Project and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

6.4. It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including: (a) the location and the nature of the contract, project, or work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work.

6.5. The Procuring Entity shall not assume any responsibility regarding erroneous interpretations or conclusions by the prospective or eligible bidder out of the data furnished by the procuring entity. However, the Procuring Entity shall ensure that all information in the Bidding Documents, including supplemental/bid bulletins issued are correct and consistent.

- 6.6. Before submitting their bids, the Bidders are deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the Philippines which may affect the contract in any way.
- 6.7. The Bidder shall bear all costs associated with the preparation and submission of his bid, and the Procuring Entity will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 6.8. The Bidder should note that the Procuring Entity will accept bids only from those that have paid the applicable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

7. Origin of Goods and Services

There is no restriction on the origin of Goods, or Contracting of Works or Services other than those prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations.

8. Subcontracts

- 8.1. Unless otherwise specified in the **BDS**, the Bidder may subcontract portions of the Works to an extent as may be approved by the Procuring Entity and stated in the **BDS**. However, subcontracting of any portion shall not relieve the Bidder from any liability or obligation that may arise from the contract for this Project.
- 8.2. Subcontractors must submit the documentary requirements under **ITB** Clause 13 and comply with the eligibility criteria specified in the **BDS**. In the event that any subcontractor is found by the Procuring Entity to be ineligible, the subcontracting of such portion of the Works shall be disallowed.
- 8.3. The Bidder may identify the subcontractor to whom a portion of the Works will be subcontracted at any stage of the bidding process or during contract implementation. If the Bidder opts to disclose the name of the subcontractor during bid submission, the Bidder shall include the required documents as part of the technical component of its bid.

B. Contents of Bidding Documents

9. Pre-Bid Conference

9.1. (a) If so specified in the **BDS**, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.

(b) The pre-bid conference shall be held at least twelve (12) calendar days before the deadline for the submission of and receipt of bids, but not earlier than seven (7) calendar days from the posting of the Invitation to Bid/Bidding Documents in the Philippine Government Electronic Procurement System (PhilGEPS) website. If the Procuring Entity determines that, by reason of the method, nature, or complexity of the contract to be bid, or when international participation will be more advantageous to the GoP, a longer period for the preparation of bids is necessary, the pre-bid conference shall be held at least thirty (30) calendar days before the deadline for the submission and receipt of bids, as specified in the **BDS**

9.2. Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the Procuring Entity's requirements. Non-attendance of the Bidder will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents as recorded in the minutes of the pre-bid conference and the Supplemental/Bid Bulletin. The minutes of the pre-bid conference shall be recorded and prepared not later than five (5) calendar days after the pre-bid conference. The minutes shall be made available to prospective bidders not later than five (5) days upon written request.

9.3. Decisions of the BAC amending any provision of the bidding documents shall be issued in writing through a Supplemental/Bid Bulletin at least seven (7) calendar days before the deadline for the submission and receipt of bids.

10. Clarification and Amendment of Bidding Documents

10.1. Prospective bidders may request for clarification(s) on and/or interpretation of any part of the Bidding Documents. Such a request must be in writing and submitted to the Procuring Entity at the address indicated in the **BDS** at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

10.2. The BAC shall respond to the said request by issuing a Supplemental/Bid Bulletin, to be made available to all those who have

properly secured the Bidding Documents, at least seven (7) calendar days before the deadline for the submission and receipt of Bids.

- 10.3. Supplemental/Bid Bulletins may also be issued upon the Procuring Entity's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of Bids. Any modification to the Bidding Documents shall be identified as an amendment.
- 10.4. Any Supplemental/Bid Bulletin issued by the BAC shall also be posted in the PhilGEPS and the website of the Procuring Entity concerned, if available, and at any conspicuous place in the premises of the Procuring Entity concerned. It shall be the responsibility of all Bidders who have properly secured the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC. However, Bidders who have submitted bids before the issuance of the Supplemental/Bid Bulletin must be informed and allowed to modify or withdraw their bids in accordance with **ITB** Clause 23.

C. Preparation of Bids

11. Language of Bids

The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered and qualified translator/agency in the foreign bidder's country; and shall be authenticated by the appropriate Philippine foreign service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. The English translation shall govern, for purposes of interpretation of the bid.

12. Documents Comprising the Bid: Eligibility and Technical Components

12.1. Unless otherwise indicated in the **BDS**, the first envelope shall contain the following eligibility and technical documents:

- (a) Eligibility Documents –

Class "A" Documents

- (i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 23.1 of the IRR, provided, that the winning bidder shall register with the PhilGEPS in accordance with Section 37.1.4 of the IRR;

If the bidder has no PhilGEPS on its own, it may enter into subcontracting, partnership or joint venture with local companies to meet the requirements.

- (ii) Eligibility registration licenses and related qualification licenses for design and construction.
- (iii) Statement of at least all ongoing government or private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; and

Statement of the Bidder's SLCC similar to the contract to be bid, in accordance with ITB Clause 5.3.

The two statements required shall indicate for each contract the following:

- (iii.1) name of the contract;
- (iii.2) date of the contract;
- (iii.3) contract duration;
- (iii.4) owner's name and address;
- (iii.5) nature of work;
- (iii.6) contractor's role (whether sole contractor, subcontractor, or partner in a JV) and percentage of participation;
- (iii.7) total contract value at award;
- (iii.8) date of completion or estimated completion time;

- (iii.9) total contract value at completion, if applicable;
- (iii.10) percentages of planned and actual accomplishments, if applicable; and
- (iii.11) value of outstanding works, if applicable.

The statement of the Bidder's SLCC shall be supported by the Notice of Award and/or Notice to Proceed, Project Owner's Certificate of Final Acceptance issued by the Owner other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;

- (iv) Unless otherwise provided in the **BDS**, a valid special PCAB License in case of joint ventures, and registration for the type and cost of the contract for this Project; and
- (v) NFCC computation in accordance with ITB Clause 5.4.

Class "B" Documents

- (vi) If applicable, Joint Venture Agreement (JVA) or Consortium Agreement (CA) in accordance with RA 4566.
- (b) Technical Documents –
- (i) The Technical Proposal Submission Form shall be the cover letter of the Technical Proposal, using the form prescribed in Section IX. Bidding forms.
 - (ii) Bid security in accordance with **ITB** Clause 18. If the Bidder opts to submit the bid security in the form of:
 - (ii.1) a bank draft/guarantee or an irrevocable letter of credit issued by a foreign bank, it shall be accompanied by a confirmation from a Universal or Commercial Bank; or
 - (ii.2) a surety bond accompanied by a certification coming from the Insurance Commission that the

surety or insurance company is authorized to issue such instruments.

- (iii) Project Requirements, which shall include the forms prescribed in Section IX. Bidding Forms.
- (iv) Sworn statement in accordance with Section 25.3 of the IRR of RA 9184 and using the form prescribed in **Section IX-E. Omnibus Sworn Statement.**

13. Documents Comprising the Bid: Financial Component

13.1. Unless otherwise stated in the **BDS**, the financial component of the bid shall contain the following:

- (a) Financial Bid Form, which includes bid prices and priced schedules, in accordance with **ITB** Clauses 15.1 and 15.3; and
- (b) Any other document related to the financial component of the bid as stated in the **BDS**.

13.2. (a) Unless otherwise stated in the **BDS**, all Bids that exceed the ABC shall not be accepted.

(b) Unless otherwise indicated in the **BDS**, for foreign-funded procurement, a ceiling may be applied to bid prices provided the following conditions are met:

- (i) Bidding Documents are obtainable free of charge on a freely accessible website. If payment of Bidding Documents is required by the procuring entity, payment could be made upon the submission of bids.
- (ii) The procuring entity has procedures in place to ensure that the ABC is based on recent estimates made by the Engineer or the responsible unit of the procuring entity and that the estimates are based on adequate detailed engineering (in the case of infrastructure projects) and reflect the quality, supervision and risk and inflationary factors, as well as prevailing market prices, associated with the types of works or goods to be procured.
- (iii) The procuring entity has trained cost estimators on estimating prices and analyzing bid variances. In the case

of infrastructure projects, the procuring entity must also have trained quantity surveyors.

- (iv) The procuring entity has established a system to monitor and report bid prices relative to ABC and engineer's/procuring entity's estimate.
- (v) The procuring entity has established a monitoring and evaluation system for contract implementation to provide a feedback on actual total costs of goods and works.

14. Alternative Bids

- 14.1. Alternative Bids shall be rejected. For this purpose, alternative bid is an offer made by a Bidder in addition or as a substitute to its original bid which may be included as part of its original bid or submitted separately therewith for purposes of bidding. A bid with options is considered an alternative bid regardless of whether said bid is contained in a single envelope or submitted in two (2) or more separate bid envelopes.
- 14.2. Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative bids shall not be accepted.
- 14.3. Each Bidder shall submit only one Bid, either individually or as a partner in a JV or Consortium. A Bidder who submits or participates in more than one bid (other than as a subcontractor if a subcontractor is permitted to participate in more than one bid) will cause all the proposals with the Bidder's participation to be disqualified. This shall be without prejudice to any applicable criminal, civil and administrative penalties that may be imposed upon the persons and entities concerned.

15. Bid Prices

- 15.1. The contract shall be for the whole Works, as described in **ITB** Clause 1.1, based on the Priced Bill of Quantities submitted by the Bidder.
- 15.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, Bill of Quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item

is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Government, except those required by law or regulations to be provided for.

- 15.3. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the Bidder.
- 15.4. All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as specified in GCC Clause 13.8. Upon the recommendation of the Procuring Entity, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority (NEDA) in accordance with the Civil Code of the Philippines, and upon approval by the GPPB. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the GoP, promulgated after the date of bid opening, a contract price adjustment shall be made, or appropriate relief shall be applied on a no loss-no gain basis.

16. Bid Currencies

- 16.1. All bid prices shall be quoted in Philippine Pesos unless otherwise provided in the **BDS**. However, for purposes of bid evaluation, bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate prevailing on the day of the Bid Opening.
- 16.2. If so allowed in accordance with **ITB** Clause 16.1, the Procuring Entity for purposes of bid evaluation and comparing the bid prices will convert the amounts in various currencies in which the bid price is expressed to Philippine Pesos at the exchange rate as published in the *Bangko Sentral ng Pilipinas* (BSP) reference rate bulletin on the day of the bid opening.
- 16.3. Unless otherwise specified in the **BDS**, payment of the contract price shall be made in Philippine Pesos.

17. Bid Validity

- 17.1. Bids shall remain valid for the period specified in the **BDS** which shall not exceed **one hundred twenty (120) calendar days** from the date of the opening of bids.
- 17.2. In exceptional circumstances, prior to the expiration of the bid validity period, the Procuring Entity may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in **ITB** Clause 18 should also be extended corresponding to the extension of the bid validity period at the least. A Bidder may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

18. Bid Security

- 18.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in an amount stated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the following schedule:

Form of Bid Security	Amount of Bid Security (Not less than the Percentage of the ABC)
(a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Two percent (2%)
(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security; and/or	Five percent (5%)

The Bid Securing Declaration mentioned above is an undertaking which states, among others, that the Bidder shall enter into contract with the procuring entity and furnish the performance security required under ITB Clause 32.2, within ten (10) calendar days from

receipt of the Notice of Award, and commits to pay the corresponding amount as fine, and be suspended for a period of time from being qualified to participate in any government procurement activity in the event it violates any of the conditions stated therein as provided in the guidelines issued by the GPPB.

- 18.2. The bid security should be valid for the period specified in the **BDS**. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.
- 18.3. No bid securities shall be returned to Bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a request for reconsideration and/or protest, or lapse of the reglementary period without having filed a request for reconsideration or protest. Without prejudice on its forfeiture, Bid Securities shall be returned only after the Bidder with the Lowest Calculated Responsive Bid (LCRB) has signed the contract and furnished the Performance Security, but in no case later than the expiration of the Bid Security validity period indicated in **ITB** Clause 18.2.
- 18.4. Upon signing and execution of the Contract, pursuant to **ITB** Clause 31, and the posting of the performance security, pursuant to **ITB** Clause 32, the successful Bidder's Bid Security will be discharged, but in no case later than the Bid Security validity period as indicated in **ITB** Clause 18.2.
- 18.5. The bid security may be forfeited:
 - (a) if a Bidder:
 - (i) withdraws its bid during the period of bid validity specified in **ITB** Clause 17;
 - (ii) does not accept the correction of errors pursuant to **ITB** Clause 27.3(b);
 - (iii) has a finding against the veracity of the required documents submitted in accordance with **ITB** Clause 28.2;
 - (iv) submission of eligibility requirements containing false information or falsified documents;

- (v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;
 - (vi) allowing the use of one's name, or using the name of another for purposes of public bidding;
 - (vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the Government without justifiable cause, after the Bidder had been adjudged as having submitted the LCRB;
 - (viii) refusal or failure to post the required performance security within the prescribed time;
 - (ix) refusal to clarify or validate in writing its bid during post-qualification within a period of seven (7) calendar days from receipt of the request for clarification;
 - (x) any documented attempt by a Bidder to unduly influence the outcome of the bidding in his favor;
 - (xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or
 - (xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.
- (b) if the successful Bidder:
- (i) fails to sign the contract in accordance with **ITB** Clause 31;
 - (ii) fails to furnish performance security in accordance with **ITB** Clause 32.

19. Format and Signing of Bids

- 19.1. Bidders shall submit their bids through their duly authorized representative using the appropriate forms provided in **Section IX. Bidding Forms** on or before the deadline specified in the ITB Clause 21 in two (2) separate sealed bid envelopes, and which shall be submitted simultaneously. The first shall contain the technical component of the bid, including the eligibility requirements under ITB Clause 12.1, and the second shall contain the financial component of the bid. This shall also be observed for each lot in the case of lot procurement.
- 19.2. Forms as mentioned in ITB Clause 19.1 must be completed without any alterations to their format, and no substitute forms shall be accepted. All blank spaces shall be filled in with the information requested.
- 19.3. The Bidder shall prepare and submit an original of the first and second envelopes as described in ITB Clauses 12 and 13. In addition, the Bidder shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.
- 19.4. Each and every page of the Bid Form, including the Priced Schedules, shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the bid.
- 19.5. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidder.

20. Sealing and Marking of Bids

- 20.1. Bidders shall enclose their original eligibility and technical documents described in **ITB** Clause 12, in one sealed envelope marked “ORIGINAL - TECHNICAL COMPONENT,” and the original of their financial component in another sealed envelope marked “ORIGINAL - FINANCIAL COMPONENT,” sealing them all in an outer envelope marked “ORIGINAL BID.”
- 20.2. Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as “COPY NO. ___ - TECHNICAL COMPONENT” and “COPY NO. ___ - FINANCIAL COMPONENT” and the outer envelope as “COPY NO. ___,” respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.

- 20.3. The original and the number of copies of the bid as indicated in the **BDS** shall be typed or written in ink and shall be signed by the Bidder or its duly authorized representative/s.
- 20.4. All envelopes shall:
- (a) contain the name of the contract to be bid in capital letters;
 - (b) bear the name and address of the Bidder in capital letters;
 - (c) be addressed to the Procuring Entity's BAC in accordance with **ITB** Clause 21.1.;
 - (d) bear the specific identification of this bidding process indicated in the **ITB** Clause 1.2; and
 - (e) bear a warning "DO NOT OPEN BEFORE..." the date and time for the opening of bids, in accordance with **ITB** Clause 21.
- 20.5. Bid envelopes that are not properly sealed and marked, as required in the bidding documents, shall not be rejected, but the Bidder or its duly authorized representative shall acknowledge such condition of the bid as submitted. The BAC or the Procuring Entity shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked bid, or for its premature opening.

D. Submission and Opening of Bids

21. Deadline for Submission of Bids

Bids must be received by the Procuring Entity's BAC at the address and on or before the date and time indicated in the **BDS**.

22. Late Bids

Any bid submitted after the deadline for submission and receipt of bids prescribed by the Procuring Entity, pursuant to **ITB** Clause 21, shall be declared "Late" and shall not be accepted by the Procuring Entity. The BAC shall record in the minutes of Bid Submission and Opening, the Bidder's name, its representative and the time the late bid was submitted.

23. Modification and Withdrawal of Bids

23.1. The Bidder may modify its bid after it has been submitted; provided that the modification is received by the Procuring Entity prior to the

deadline prescribed for submission and receipt of bids. The Bidder shall not be allowed to retrieve its original bid but shall be allowed to submit another bid equally sealed and properly identified in accordance with Clause 20, linked to its original bid marked as “TECHNICAL MODIFICATION” or “FINANCIAL MODIFICATION” and stamped “received” by the BAC. Bid modifications received after the applicable deadline shall not be considered and shall be returned to the Bidder unopened.

- 23.2. A Bidder may, through a Letter of Withdrawal, withdraw its bid after it has been submitted, for valid and justifiable reason; provided that the Letter of Withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of bids. The Letter of Withdrawal must be executed by the authorized representative of the Bidder identified in the Omnibus Sworn Statement, a copy of which should be attached to the letter.
- 23.3. Bids requested to be withdrawn in accordance with **ITB** Clause 23.1 shall be returned unopened to the Bidders. A Bidder, who has acquired the bidding documents may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of bids. A Bidder that withdraws its bid shall not be permitted to submit another bid, directly or indirectly, for the same contract.
- 23.4. No bid may be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Financial Bid Form. Withdrawal of a bid during this interval shall result in the forfeiture of the Bidder’s bid security, pursuant to **ITB** Clause 18.5, and the imposition of administrative, civil, and criminal sanctions as prescribed by RA 9184 and its IRR.

24. Opening and Preliminary Examination of Bids

- 24.1. The BAC shall open the Bids in public, immediately after the deadline for the submission and receipt of bids in public, as specified in the **BDS**. In case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the Bids submitted and reschedule the opening of Bids on the next working day or at the soonest possible time through the issuance of a Notice of Postponement to be posted in the PhilGEPS website and the website of the Procuring Entity concerned.

- 24.2. Unless otherwise specified in the **BDS**, the BAC shall open the first bid envelopes and determine each Bidder's compliance with the documents prescribed in ITB Clause 12, using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed".
- 24.3. Unless otherwise specified in the **BDS**, immediately after determining compliance with the requirements in the first envelope, the BAC shall forthwith open the second bid envelope of each remaining eligible Bidder whose first bid envelope was rated "passed." The second envelope of each complying Bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in **ITB** Clause 13.2, the BAC shall rate the bid concerned as "failed." Only bids that are determined to contain all the bid requirements for both components shall be rated "passed" and shall immediately be considered for evaluation and comparison.
- 24.4. Letters of Withdrawal shall be read out and recorded during bid opening, and the envelope containing the corresponding withdrawn bid shall be returned to the Bidder unopened.
- 24.5. All members of the BAC who are present during bid opening shall initial every page of the original copies of all bids received and opened.
- 24.6. In the case of an eligible foreign bidder as described in **ITB** Clause 4.1, the following Class "A" Documents may be substituted with the appropriate equivalent documents, if any, issued by the country of the foreign bidder concerned, which shall likewise be uploaded and maintained in the PhilGEPS in accordance with Section 8.5.2 of the IRR.:
- a) Registration certificate from the Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives;
 - b) Mayor's/Business permit issued by the local government where the principal place of business of the Bidder is located; and

- c) Audited Financial Statements showing, among others, the prospective Bidder's total and current assets and liabilities stamped "received" by the Bureau of Internal Revenue or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two years from the date of bid submission.
- 24.7. Each partner of a joint venture agreement shall likewise submit the document required in **ITB** Clause 12.1(a)(i). Submission of documents required under **ITB** Clauses 12.1(a)(iii) to 12.1(a)(iv) by any of the joint venture partners constitutes compliance.
- 24.8. The Procuring Entity shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.
- 24.9. The Bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all submitted bids. The Abstract of Bids as read and the minutes of the Bid Opening shall be made available to the public upon written request and payment of a specified fee to recover cost of materials.
- 24.10. To ensure transparency and accurate representation of the bid submission, the BAC Secretariat shall notify in writing all Bidders whose bids it has received through its PhilGEPS-registered physical address or official e-mail address. The notice shall be issued within seven (7) calendar days from the date of the bid opening.

E. Evaluation and Comparison of Bids

25. Process to be Confidential

- 25.1. Members of the BAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any Bidder regarding the evaluation of their bids until the issuance of the Notice of Award, unless otherwise allowed in the case of **ITB** Clause 26.
- 25.2. Any effort by a Bidder to influence the Procuring Entity in the Procuring Entity's decision in respect of bid evaluation, bid

comparison or contract award will result in the rejection of the Bidder's bid.

26. Clarification of Bids

To assist in the evaluation, comparison and post-qualification of the bids, the Procuring Entity may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the Procuring Entity shall not be considered.

27. Detailed Evaluation and Comparison of Bids

27.1. The Procuring Entity will undertake the detailed evaluation and comparison of Bids which have passed the opening and preliminary examination of Bids, and were determined substantially responsive pursuant to **ITB** Clauses 24, in order to determine the Lowest Calculated Bid.

27.2. The Lowest Calculated Bid shall be determined in two steps:

- (a) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and
- (b) The ranking of the total bid prices as so calculated from the lowest to highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.

27.3. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all bids rated "passed," using non-discretionary "pass/fail" criterion and determined substantially responsive. The BAC shall consider the following in the evaluation of bids:

- (a) Completeness of the bid. Unless the **BDS** allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, Priced Schedules, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the Procuring Entity, except those required by law or regulations to be provided for; and

- (b) Arithmetical corrections. Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications. Any adjustment shall be calculated in monetary terms to determine the calculated prices.
- 27.4. Based on the detailed evaluation of bids, those that comply with the above-mentioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered, unless otherwise indicated in the **BDS**.
- 27.5. The Procuring Entity's evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Priced Schedules.
- 27.6. Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all Bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value added tax (VAT), income tax, local taxes, and other fiscal levies and duties which shall be itemized in the bid form and reflected in the detailed estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.
- 27.7. If so indicated pursuant to **ITB** Clause 1.2. Bids are being invited for individual lots or for any combination thereof, provided that all Bids and combinations of Bids shall be received by the same deadline and opened and evaluated simultaneously so as to determine the bid or combination of bids offering the lowest calculated cost to the Procuring Entity. Bid prices quoted shall correspond to all of the requirements specified for each lot. Bid Security as required by **ITB** Clause 18 shall be submitted for each contract (lot) separately. The basis for evaluation of lots is specified in **BDS** Clause 27.3.

28. Post Qualification

- 28.1. The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the Lowest Calculated Bid complies with and is responsive to all the requirements and conditions specified in **ITB** Clauses 5, 12, and 13.

28.2. Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (EFPS) and other appropriate licenses and permits required by law and stated in the **BDS**.

Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award. Provided in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security in accordance with Section 69 of the IRR of RA 9184.

28.3. The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted pursuant to **ITB** Clauses 12 and 13, as well as other information as the Procuring Entity deems necessary and appropriate, using a non-discretionary "pass/fail" criterion, which shall be completed within a period of twelve (12) calendar days.

28.4. If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, and recommend to the HoPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower, subject to **ITB** Clause 30.3.

28.5. A negative determination shall result in rejection of the Bidder's bid, in which event the Procuring Entity shall proceed to the next Lowest Calculated Bid, with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the LCRB is determined for recommendation of contract award.

28.6. Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the LCRB and the recommendation to award the contract, the HoPE or his duly authorized representative shall approve or disapprove the said recommendation.

28.7. In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of RA 9184, the HoPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall

conduct a post-qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the Bidder with the HoPE in accordance with Section 37.1.3 of the IRR of RA 9184.

29. Reservation Clause

- 29.1. Notwithstanding the eligibility or post-qualification of a Bidder, the Procuring Entity concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the Procuring Entity shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.
- 29.2. Based on the following grounds, the Procuring Entity reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:
- (a) If there is *prima facie* evidence of collusion between appropriate public officers or employees of the Procuring Entity, or between the BAC and any of the Bidders, or if the collusion is between or among the Bidders themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;
 - (b) If the Procuring Entity's BAC is found to have failed in following the prescribed bidding procedures; or
 - (c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of the GOP as follows:
 - (i) If the physical and economic conditions have significantly changed so as to render the project no

longer economically, financially or technically feasible as determined by the HoPE;

- (ii) If the project is no longer necessary as determined by the HoPE; and
- (iii) If the source of funds for the project has been withheld or reduced through no fault of the Procuring Entity.

29.3. In addition, the Procuring Entity may likewise declare a failure of bidding when:

- (a) No bids are received;
- (b) All prospective Bidders are declared ineligible;
- (c) All bids fail to comply with all the bid requirements, fail post-qualification; or
- (d) The Bidder with the LCRB refuses, without justifiable cause, to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.

F. Award of Contract

30. Contract Award

30.1. Subject to **ITB** Clause 288, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the Lowest Calculated Responsive Bid (LCRB).

30.2. Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the Bidder with the LCRB and submitted personally or sent by registered mail or electronically to the Procuring Entity.

30.3. Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:

- (a) Submission of the following documents within ten (10) calendar days from receipt of the Notice of Award:

- (i) In the case of procurement by a Philippine Foreign Service Office or Post, the PhilGEPS Registration Number of the winning foreign Bidder; or
 - (ii) Valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders when the Treaty or International or Executive Agreement expressly allows submission of the PCAB license and registration for the type and cost of the contract to be bid as a pre-condition to the Award;
- (b) Posting of the performance security in accordance with **ITB** Clause 32;
 - (c) Signing of the contract as provided in **ITB** Clause 31; and
 - (d) Approval by higher authority, if required, as provided in Section 37.3 of the IRR of RA 9184.

31. Signing of the Contract

- 31.1. At the same time as the Procuring Entity notifies the successful Bidder that its bid has been accepted, the Procuring Entity shall send the Contract Form to the Bidder, which Contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.
- 31.2. Within ten (10) calendar days from receipt of the Notice of Award, the successful Bidder shall post the required performance security, sign and date the contract and return it to the Procuring Entity.
- 31.3. The Procuring Entity shall enter into contract with the successful Bidder within the same ten (10) calendar day period provided that all the documentary requirements are complied with.
- 31.4. The following documents shall form part of the contract:
 - (a) Contract Agreement;
 - (b) Bidding Documents;
 - (c) Winning Bidder's bid, including the Technical and Financial Proposals, and all other documents/statements submitted (*e.g.*, Bidder's response to request for clarifications on the bid),

including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- (d) Performance Security;
- (e) Notice of Award of Contract; and
- (f) Other contract documents that may be required by existing laws and/or specified in the **BDS**.

32. Performance Security

32.1. To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of ten (10) calendar days from the receipt of the Notice of Award from the Procuring Entity and in no case later than the signing of the contract.

32.2. The Performance Security shall be denominated in Philippine Pesos and posted in favor of the Procuring Entity in an amount not less than the percentage of the total contract price in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Not less than the Percentage of the Total Contract Price)
(a) Cashier's/manager's check issued by a Universal or Commercial Bank.	Ten percent (10%)
(b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such	Thirty percent (30%)

security.	
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32.3. Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall have a fresh period to initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until LCRB is identified and selected for recommendation of contract award. However, if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.

33. Notice to Proceed

Within seven (7) calendar days from the date of approval of the Contract by the appropriate government approving authority, the Procuring Entity shall issue the Notice to Proceed (NTP) together with a copy or copies of the approved contract to the successful Bidder. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

34. Protest Mechanism

Decision of the procuring entity at any stage of the procurement process may be questioned in accordance with Sections 55 of the IRR of RA 9184.

Section III. Bid Data Sheet

Bid Data Sheet

ITB Clause	Description
1.1	<p>The Procuring Entity is the Department of Transportation</p> <p>The name of the Contract is:</p> <p>Design and Build Contract for the Design and Construction of Works for the PNR South Long Haul Project (Package 1, Banlic to Daraga)</p> <p>The identification number of the Contract is: PB No. 21-088-4.</p>
2	<p>The Funding Source is:</p> <p>The Government of the Philippines (GoP) intends to apply a loan to the People's Republic of China amounting to [PHP 142.481 Billion].</p> <p>The name of the Project is the PNR South Long Haul Project(Package 1, Banlic to Daraga)</p>
3.1	No further instructions.
4	No further instructions.
5.1	The Embassy of PRC in the Philippines will provide a list of at least three (3) Chinese Contractors to bid.
5.2	<p>Bidding is restricted to eligible bidders as defined in ITB Clause 5.1.</p> <p>Pursuant to the applicable executive agreements between the Government of the Philippines and the Government of the People's Republic of China (GPH-GPRC Executive Agreements), the Embassy of the People's Republic of China to the Philippines provided a shortlist of three (3) qualified, legitimate, and in good standing Chinese contractors to participate.</p>
5.3(a)	<p>The following additional wording is added at the end of this sub-paragraph:</p> <p style="padding-left: 40px;">(i) The eligibility of design and build contractors shall be based on the legal, technical and financial requirements abovementioned. In the technical requirements, the design and build contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirement in ITB 5.3. (a), where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the</p>

	<p>cost of the ABC.</p> <p>(ii) If the bidder has no experience in design and build projects on its own it may enter into subcontracting, partnerships, or joint venture with design or engineering firms for the design portion of the contract. In this case, The bidder should have SLCC within the last twenty (20) years for the construction of a railway project with a value of equivalent to fifty percent (50%) of the ABC; Meanwhile, the design or engineering firms should have SLCC within the last twenty (20) years for the detailed engineering design of a railway project with a value of equivalent to fifty percent (50%) of the ABC or the length equivalent to fifty percent (50%) of the project.</p>
5.3(b)	<p>The definition of similar contract is as follows:</p> <p>For Bidders that will submit a design and construction contract, "Similar Contracts" refers to a single largest completed contract for the detailed engineering design and construction, Engineering Procurement Construction and Commissioning ("EPCC"), or Turnkey contract for a railway project with a value of equivalent to fifty percent (50%) of the ABC; or</p> <p>For Bidders that will submit a separate design and construction contracts pursuant to Section 9.2.b. ii. of Annex "G" of the Implementing Rules and Regulations ("IRR"), "Similar Contracts" refers to:</p> <p>(a) a single largest completed contract for the construction of a railway project with a value of equivalent to fifty percent (50%) of the ABC; and,</p> <p>(b) a single largest completed contract for the detailed engineering design of a railway project with a value of equivalent to fifty percent (50%) of the ABC or the length equivalent to fifty percent (50%) of the project.</p>
5.4	<p>Amend the first paragraph of Sub-Clause 5.4 as follow:</p> <p>The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC) or a Commitment from a Universal or Commercial bank to extend a credit line in its favor if awarded the contract for this project (CLC).</p>
6.2	<p>All sub-contractors are subject to DOTr's acceptance. The DB Contractor will be responsible for the overall performance of the</p>

	sub-contractors.
8.1	<p>Subcontracting is allowed for the following portions of Works:</p> <p>Any type of works may be subcontracted, provided the contractor shall undertake not less than 50% of the contracted works with its own resources.</p>
8.2	<p>Subcontractors must comply with the eligibility criteria under ITB Clause 5, including the corresponding documentary requirements therefore, with references to “Bidder”, “Project” and “ABC” deemed to be references to “subcontractors”, “portion of the Works subject of the subcontract” and “percentage of the ABC corresponding to the portion of the Works subject of the subcontract.”</p> <p>Subcontractors (if any) shall have at least five (5) years of experience in similar contracts to the works to be subcontracted and must submit documentary requirements under ITB Clause 12 and detailed particulars and proof indicating their technical competence, availability of resources, and financial capability for the works to be subcontracted, subject to the approval of the Engineer.</p> <p>Any subcontractor proposed by the bidder must not be, at the time of bid opening of bids, have been debarred or blacklisted by the any of the Philippine government entity and any International Financial Organization.</p>
9.1	<p>The Procuring Entity will hold a pre-bid conference for this Project on <i>10:00AM, 11 June 2021 at PS Conference Rooms, Procurement Service, Paco, Manila.</i></p> <p>The Procuring Entity will not organize the bidders for site inspection during the bidding procedure. However, for purposes of acknowledging well all the conditions of the project, bidders are encouraged to make site inspections by themselves. Bidders without site inspections will in no way prejudice its bid.</p>
10.1	<p>The Procuring Entity’s address is:</p> <p><i>The Procuring Entity’s address is: Bids and Awards Committee IV Procurement Service Ps Complex, RR Road, Cristobal Street Paco, Manila Contact details:(632)8-689-7750 Email address: bac4_slh@ps-philgeps.gov.ph</i></p>

12.1(a)(iii)	<p>Additional mandatory documents:</p> <p>The bidder shall submit relevant statements of at least three (3) completed design/construction/design and build/EPC transportation related contracts. The statement shall indicate for each contract the information pursuant to <u>iii.1-iii.10) and the last paragraph of ITB12.1(a).</u></p>
12.1(a)(iv)	<p>Section 37.1.4 of the RA No. 9184 Implementing Rules and Regulation provides that the winning bidder must submit a valid PCAB license and registration for the type and cost of the contract to be bid for foreign bidders in Infrastructure Projects, when Treat or International or Executive Agreement expressly allow submission of such license and registration as a pre-condition to the Notice of Award.</p>
12.1(a)(vi)	<p>If applicable, submit a valid Joint Venture Agreement (JVA) or Consortium Agreement (CA) that the stipulations, clauses, terms and conditions as they may deem convenient, provided they are not contrary to law, morals, good customs, public order or public policy. At the very least the following will be required:</p> <p>(vi.1) JVA must be notarized;</p> <p>(vi.2) JVA shall be in accordance with RA 4566 and its IRR; and</p> <p>(vi.3) clearly state the representative of each corporation and of the JV.</p>
12.1 (b)(i)	<p>While preparing the Technical Proposal, Bidders must give particular attention to the following:</p> <p>(a) The Technical Proposal shall not include any financial information. Any Technical Proposal containing financial information shall be declared non-responsive.</p> <p>(b) Proposed key professional staff must, at minimum, have the experience and qualifications indicated in the <u>Section IX-C.3. Key Personnel.</u></p>
12.1(b)(iii)	<p>The bidder shall demonstrate its capacity to deploy their equipment for the construction of project as required under <u>Section IX-C.3 Contractor's Equipment.</u></p>
12.1(b)(iv)	<p>The following shall be added in the Omnibus Sworn Statement:</p> <p>10. <i>[Name of the Bidder]</i> hereby assigns the following contact number/s and email address as the official telephone/fax number and contact reference of the company where the BAC</p>

	<p>notices may be transmitted.</p> <p>Telefax/Phone Number : (1) _____ (2) _____ (3) _____</p> <p>Email Address : (4) _____</p> <p>It is understood that notice/s transmitted in the above stated telephone/fax numbers and/or email address are deemed received as of its successful transmittal and the reckoning period for the reglementary periods in the bidding documents and RA No. 9184 IRR.</p>
12.2(a) (ii.11)	<p>value of outstanding works, if applicable.</p> <p>The statement of the Bidder's SLCC shall be supported by the Notice of Award and/or Notice to Proceed and/or Project Contract Agreement and/or Employer's Certification Letter, Project Employer's Certificate of Final Acceptance issued by the Employer other than the Contractor or the Constructors Performance Evaluation System (CPES) Final Rating, which must be at least satisfactory. In case of contracts with the private sector, an equivalent document shall be submitted;</p>
13.1	No additional Requirements
13.1(b)	<p>This shall include all of the following documents:</p> <ol style="list-style-type: none"> 1) Priced Schedules as detailed in <u>Section IX-B. Priced Activity and Sub-activity Schedules</u>; 2) Detailed estimates, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; and 3) Cash flow by quarter or payment schedule.
13.2	The ABC is <i>[PHP142.481Billion]</i> . Any bid with a financial component exceeding this amount shall not be accepted.
14.2	No further instructions.
16.3	Subject to the final loan agreement as negotiated and agreed upon by the Government of the Philippine and Government of People's Republic of China.
17.1	Bids will be valid until 120 days, inclusive, from the bid submission date.
18.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <ol style="list-style-type: none"> 1. The amount of not less than <u>PHP 2.84962 Billion</u> <i>[Insert 2% of</i>

	<p><i>ABC]</i>, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</p> <p>2. The amount of not less than <u>PHP 7.12405 Billion</u><i>[Insert 5% of ABC]</i> if bid security is in Surety Bond.</p>
18.2	The bid security shall be valid until 23 October 2021 or One Hundred Twenty (120) Calendar Days from opening of bids.
20.3	Each Bidder shall submit one (1) original, six (6) copies, and two (2) softcopies stored in two (2) USB flashdrives of the first and second components of its bid.
21	<p>The address for submission of bids is:</p> <p>Bids and Awards Committee IV Bid Box Procurement Service PS Complex, RR Road, Cristobal Street Paco, Manila</p> <p>The deadline for submission of bids is 10:00AM, 25 June 2021.</p>
24.1	<p>The place of bid opening is:</p> <p>PS Conference Rooms Procurement Service PS Complex, RR Road, Cristobal Street Paco, Manila</p> <p>The date and time of bid opening is 10:00AM, 25 June 2021.</p>
24.2	<p>A single-stage two-step procedure shall be undertaken by the Procuring Entity which may be undertaken with the assistance of the Design and Build Committee (DBC) or with the Procuring Entity's Engineer.</p> <p><u>First Step Procedure</u> – The BAC shall open the first bid envelopes of Bidders in publicto determine each Bidder's compliance with the documents prescribed in ITB Clause 12. For this purpose, the BAC shall check the submitted documents of each Bidder against a checklist of required documents to ascertain if they are all present, using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed". All the bids that are rated "passed" shall then be subjected to detailed evaluation in accordance with the procedure under BDS Clause 27.1 and with the</p>

	<p>evaluation criteria in Appendix A (Technical Score Evaluation Table) and Appendix B (Threshold Technical Requirements), Part C (Technical Proposal Forms) of Section IX (Bidding Forms).</p>
24.3	<p>Second Step Procedure – Following the evaluation described in the First Step procedure, the bids shall be subjected to the Second Step Procedure. The BAC shall set the date of the opening of the second (financial) envelope each remaining eligible bidder whose first envelope passed the criteria of the First Step Procedure. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC unless otherwise provided in ITB Clause 13.2, the BAC shall rate the bid concerned as “failed”. Only bids that are determined to contain all the bid requirements for both components shall be rated “passed” and shall immediately be considered for evaluation and comparison.</p>
27.1	<p>Additional Guidelines:</p> <p>27.1 a. Prior to the detailed evaluation of bids, the Procuring Entity will determine whether each Bid is substantially responsive to the requirements of the Bidding Documents. For the purpose of these processes, a substantially responsive Bid is one which conforms to all the terms, conditions and requirements of the Bidding Documents without material deviations or reservations.</p> <p>27.1 b. The Procuring Entity will undertake the detailed evaluation and comparison of Bids that have passed the opening and preliminary examination of Bids and were determined substantially responsive pursuant to ITB Clauses 24 and 26, in order to determine the Lowest Calculated Bid. The detailed evaluation shall be in accordance with the evaluation criteria in (i) Appendix A (Technical Score Evaluation Table), where each Bid must obtain a total score of at least 70 points (equivalent to 70% rating) in order to pass; and (ii) Appendix B (Threshold Technical Requirements), where each Bid must meet each threshold technical requirement in order to pass; both appendices of Part C (Technical Proposal Forms) of Section IX (Bidding Forms).</p> <p>27.1.c. If a Bid is not substantially responsive to the requirements of the Bidding Documents, it will be rejected by the Procuring Agency. The Bid shall not be made responsive by the Bidder correcting or withdrawing the non-conforming deviations or reservation.</p>
27.3	<p>Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose</p>

	<p>of bidding, evaluation, and contract award.</p> <p>The NFCC computation, if applicable, must be sufficient for the contract to be awarded to the Bidder.</p>
27.4	Based on the detailed evaluation of bids, the total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered.
27.5	The Procuring Entity's evaluation of the financial score shall be based on the bid price quoted in the Bid form, which included the Priced Schedules.
28.1	The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having achieved the Lowest Calculated Bid complies with and is responsive to all requirements and conditions in ITB Clauses 5, 12 and 13.
28.2	Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Bid with the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS) and other appropriate licenses and permits required by law.
28.4	If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post qualification it shall recommend to HoPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower subject to ITB Clause 30.3.
28.5	A negative determination shall result in rejection of the Bidder's bid, in which event the Procuring Entity shall proceed to the Bidder with the next Lowest Calculated Bid, with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the Bidder with the Lowest Calculated Bid is determined for recommendation of contract award.
28.6	Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the Bidder with the Lowest Calculated Responsive Bid and the recommendation to award the contract, the HoPE or his duly authorized representative shall approve or disapprove the said recommendation.
28.7	In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of

	RA 9184, the HoPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall conduct a post-qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the Bidder with the HoPE in accordance with Section 37.1.3 of the IRR of RA 9184.
29.3(d)	(d) The Bidder with the Lowest Calculated Responsive Bidder refuses, without justifiable cause, to accept the award of contract, and no award is made in accordance with Section 40 of the IRR of RA 9184.
30.1	Subject to ITB Clause 28, the HoPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to have the Lowest Calculated Responsive Bid.
30.2	Prior to the expiration of the period of bid validity, the Procuring Entity shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the Bidder with the highest combined score and submitted personally or sent by registered mail or electronically to the Procuring Entity.
31.4(f)	Additional contract documents required shall include construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the Department of Labor and Employment, and PERT/CPM or other acceptable tools of project scheduling.
32.1	If ten(10) days for preparing performance security are not enough, extension can be applied and negotiated.
32.3	Failure of the successful Bidder to comply with the above-mentioned requirement shall constitute sufficient ground for the annulment of the award and forfeiture of the bid security, in which event the Procuring Entity shall have a fresh period to initiate and complete the post qualification of the Bidder with the second Lowest Calculated Bid. The procedure shall be repeated until the Bidder with the Lowest Calculated Bid is identified and selected for recommendation of contract award. However, if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.
33	The clause is amended as follows: The Procuring Entity can only issue the Notice to Proceed (NTP) to

	<p>the successful Bidder after the successful negotiation of the loan and its effectivity. The period of loan negotiation is dependent on the process of Department of Finance and China Exim Bank. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.</p>
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Section IV. General Conditions of Contract

Section IV. General Conditions of Contract

The General Conditions of Contract shall be Clauses 1 through 20, including the Appendix and Annex, of the General Conditions of the document entitled *Conditions of Contract for Plant and Design Build for Electrical and Mechanical Plant, and for Building and Engineering Works, Designed by The Contractor* (Edition 1999), issued by the International Federation of Consulting Engineers (FIDIC). Copies of the FIDIC document may be obtained through www.fidic.org.

Section V (Particular Conditions) contains the amendments and additions to the General Conditions of Contract.

Section V. Particular Conditions of Contract

Particular Conditions

Part A. Contract Data

Conditions	Sub-Clause	Data
Employer's name and address	1.1.2.2 & 1.3	The Department of Transportation of the Republic of the Philippines (DOTr) Address: DOTr Compound, <u>Apo Court Pinatubo St. cor. Osmeña, Clark Freeport Zone, Pampanga</u>
Contractor's name and address	1.1.2.3 & 1.3	<i>[To be inserted]</i>
Engineer's name and address	1.1.2.4 & 1.3	<i>China Railway Design Corporation and Guangzhou Wanan Construction Supervision Co. LTD. Consortium</i> Address: 152 Valero Street, Salcedo Village, Makati, Metro Manila
Contractor's Representative	1.1.2.5	<i>[To be inserted]</i>
Time for Completion	1.1.3.3	Time for completion is thirty-six (36) months for the whole project after the date of the Employer give the Contractor right of access to and possession of the site. The target date for early partial operation is 31 December 2021.
Defects Notification Period	1.1.3.7	12 Months
Communications	1.3	Letters or Electronic mails (E-mails)
Governing Law	1.4	The law of the Republic of Philippines
Ruling language	1.4	English
Language for	1.4	English

Conditions	Sub-Clause	Data				
communications						
Contract Agreement	1.6	Within ten (10) calendar days from the Contractor's receipt of the Employer's Notice of Award, if 10 days are not enough, extension can be applied and negotiated.				
Time for access to the Site	2.1	<p>Within 14 days after Commencement Date.</p> <p>The Contractor shall commence the execution of the Works as soon as is reasonably practicable, and shall then proceed with the Works with due expedition and without delay.</p> <p>The employer will hand-over the available sites in time for the commencement of works as required under Section V. PCC, Part B, Sub-Clause 8.1.</p>				
Engineer's Duties and Authority	3.1	<p>The Engineer shall obtain the specific approval of the Employer before taking action under the following Sub-Clauses of these Conditions:</p> <p>(a) Sub-Clauses 1.9, 2.1, 3.5, 4.7 and 4.12: agreeing or determining an extension of time and/or additional Cost;</p> <p>(b) Sub-Clause 13.1: instructing a Variation, except when the Engineer is allowed under paragraph 3 of Sub-Clause 13.3 to instruct a Variation without the prior approval of the Employer;</p> <p>(c) Sub-Clause 13.3: approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause 13.1 or 13.2.</p>				
Performance Security	4.2	<p>The Performance Security shall be denominated in Philippine Pesos.</p> <p>The amount of the Performance Security shall not be less than the amount corresponding to the percentage of the Accepted Contract Amount stated in the following schedule:</p> <table border="1"> <thead> <tr> <th>Form of Performance</th> <th>Amount of</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Form of Performance	Amount of		
Form of Performance	Amount of					

Conditions	Sub-Clause	Data	
		Security	Performance Security (Not less than the percentage of the Accepted Contract Amount)
		Cashier's/ manager's check issued by a Universal or Commercial Bank	10%
		Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, That it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank .	10%
		Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as	30%
Contractor's Representative's name	4.3	<i>[To be inserted]</i>	
Period for notifying unforeseeable errors, faults and	5.1	14 days after the commencement date	

Conditions	Sub-Clause	Data
defects in the Employer's Requirements		
Operation and Maintenance Manuals	5.7	30 days prior to commencement of the Tests on Completion
Normal working hours	6.5	8:00am – 6:00pm.
Period of updated programme	8.3	28 days
Delay damages for the works	8.7& 14.15(b)	1,000,000 Philippine Pesos per day
Maximum amount of Delay damages	8.7	10% of the amount of the Accepted Contract Price
Suspension of Work	8.8	0.1% of the cost of the unperformed portion of the Works
Unfulfilled Obligations	11.10	24 months after issue of the Performance Certificate
Percentage rate for overhead charges and profit	13.5(b)	5%
Total amount of advance payment	14.2	15% of the Accepted Contract Amount

Conditions	Sub-Clause	Data
Currencies of advance payment	14.2	<p>The currency specified in the loan agreement and/or Philippine Pesos.</p> <p>The fixed exchange rates to be used for calculating the payments, will be published in the Bangko Sentral ng Pilipinas (BSP) reference rate bulletin on the day of the bid opening.</p>
Start repayment of advance payment	14.2(a)	When payments are 30% of the Accepted Contract Amount less Provisional Sums
Repayment amortisation of advance payment	14.2(b)	30%
Percentage of Retention	14.3(c)	10% of the amount due to the Contractor under his Statement prior to any deduction under Sub-Clause 14.3.
Limit of Retention Money	14.3(c)	Until the Employer determines that 50% of the value of the Works is complete; provided, retention amounts shall continue if the Works are not satisfactorily done or if the execution of the Works is not on schedule.
Currency of Payment	14.15	<p>The currency specified in the loan agreement and/or Philippine Pesos.</p> <p>The fixed exchange rates to be used for calculating the payments, will be published in the Bangko Sentral ng Pilipinas (BSP) reference rate bulletin on the day of the bid opening.</p>
Maximum total liability of the Contractor to the Employer	17.6	100% of the Accepted Contract Amount.

Conditions	Sub-Clause	Data
Kinds of insurance	18.1	In addition to the kinds of insurance enumerated in Particular Conditions Sub-Clause 18.1(1), the Contractor shall maintain the Contractor's All Risk Insurance of not less than <i>Pesos 170,000,000,000.00 (Pesos One hundred and Seventy Billion)</i> , and also obtain and maintain professional indemnity insurance of not less than <i>Pesos 500,000,000.00 (Pesos Five Hundred Million)</i> for the Contractor's designers for the design of the Works, in the same manner as required under the said Sub-Clause.
Periods for submission of insurance:	18.1	
a. evidence of insurance.		28 days.
b. relevant policies		28 days.
Maximum amount of deductibles for insurance of the Employer's risks	18.2(d)	<i>[Pesos 1,000,000,000.00 (Pesos One Billion)]</i>
Minimum amount of third party insurance	18.3	<i>[Pesos 500,000,000.00 (Pesos Five Hundred Million)]</i>
Date by which the DAB shall be appointed	20.2	Within 56 days after the Commencement Date.
The DAB shall comprise	20.2	Three members.
Appointing official	20.3	National President of the Integrated Bar of the Philippines [<i>RA9285, Philippines ADR Act</i>]

Particular Conditions

Part B. Particular Conditions

Clause 1	General Provisions
1.1.1.1	<p>Definition is revised as follows:</p> <p><i>[REVISED]</i>"Contract" means the Agreement between the Employer and the Contractor to design, execute, and complete the works and remedy any defects in the works, comprising the documents listed under section 37.2.3 of the Implementing Rules and Regulations of Republic Act NO. 9184." [IRR §37.2.3, PBD infra ITB §31.4, PBD infra contract agreement §2, PBD infra GCC §1.4].</p>
1.1.1.2	<p>"Contract Agreement" means the Contract Agreement (if any) referred to in Sub-Clause 1.6 [<i>Contract Agreement</i>].</p> <p><i>[NEW]</i> The form of contract agreement shall refer to the provided form under Section IX-D of the PNR South Long Haul Bidding Document.</p>
1.1.1.3	<p>Definition is revised as follows:</p> <p><i>[REVISED]</i>"Letter of Acceptance" means the Notice of Award issued by the Employer to the Contractor, indicating that the Employer accepted the bid of the Contractor.</p>
1.1.1.4	<p>Not Applicable.</p>
1.1.1.5	<p>Definition is revised as follows:</p> <p><i>[REVISED]</i>"Employer's Requirements" means the document denominated as such in Volume III of the Bidding Documents and any additions and modifications to such document in accordance with the Contract. Such document specifies the purpose, scope, and/or design and/or other technical criteria, for the Works.</p>
1.1.1.6	<p>Definition is revised as follows:</p>

	<i>[REVISED]</i> “Schedules” means (i) the documents entitled schedules, completed and submitted by the Contractor, as included in the Contract in response to and in consonance with the requirements of the Bidding Documents; and (II) The schedules completed by the Employer and incorporated into the Contract.
1.1.1.7	No revision.
1.1.1.8	<p>Definition is revised as follows:</p> <p><i>[REVISED]</i> “Tender” is synonymous with “Bid”, which means the signed offer to undertake the contract submitted by the Contractor in response to and in consonance with the requirements of the Bidding Documents.</p>
1.1.1.9	<p>Definition is revised as follows:</p> <p><i>[REVISED]</i> “Appendix to Tender” is synonymous with “Contract Data”, which means the completed pages entitled “Contract Data” submitted by the Contractor to the Employer in response to and in consonance with the requirements of the Bidding Documents.</p>
1.1.1.10	No revision.
1.1.1.11	“Bidding Documents” means the documents issued by the Employer, including any addenda or supplemental bid bulletins, as the basis for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Contract.
1.1.1.12	“Invitation to Bid” means the document denominated as such in Section I of the Bidding Documents.
1.1.1.13	“Instructions to Bidders” (also referred to as “ITB”) means the document denominated as such in Section II of Volume I of the Bidding Documents.
1.1.1.14	“Bid Data Sheet” (also referred to as “BDS”) means the document denominated as such in Section III of Volume I of

	the Bidding Documents.
1.1.1.15	“ Notice to Proceed ” means a written notice issued by the Engineer under Sub-Clause 8.1 to the Contractor requiring the latter to commence the design and execution of the Works not later than the date specified in, or determinable according to, such written notice.
1.1.2.1	No revision.
1.1.2.2	<p>Definition is revised as follows:</p> <p><i>[REVISED]</i>“Employer” means the person named as Employer in the Appendix to Tender and the legal successors in title to this person.</p> <p>The words “Employer” and “Procuring Entity” are used interchangeably.”</p>
1.1.2.3	No revision.
1.1.2.4	No revision.
1.1.2.5	No revision.
1.1.2.6	No revision.
1.1.2.7	No revision.
1.1.2.8	No revision.
1.1.2.9	No revision.
1.1.2.10	No revision.
1.1.3.1	No revision.
1.1.3.2	<p>Definition is revised as follows:</p> <p><i>[REVISED]</i>“Commencement Date” means the date specified in, or determinable according to, the notice to proceed</p>

	issued under sub-clause 8.1 for the Contractor to commence the design and execution of the works.
1.1.3.3	No revision.
1.1.3.4	No revision.
1.1.3.5	Definition is revised as follows: <i>[REVISED]</i> “Taking-Over Certificate”, synonymous with “Certificate of Completion”, means a certificate issued under Clause 10.
1.1.3.6	No revision.
1.1.3.7	Definition is revised as follows: “Defects Notification Period”, synonymous with “Defects Liability Period”, means the period between contract completion and the date of issuance of the Performance Certificate, within which period the Contractor assumes the responsibility to undertake the repair of any damage to the Works at his own expense [PBD Infra GCC §1.14], with the duration of such period as stated in the Contract Data (with any extension under Sub-Clause 11.3 [Extension of Defects Notification Period]), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1 [Taking Over the Works and Sections].”
1.1.3.8	Definition is revised as follows: <i>[REVISED]</i> “Performance Certificate” is synonymous with “Certificate of Final Acceptance”, which means the certificate issued under Sub-Clause 11.9.
1.1.3.9	No revision.
1.1.3.10	“Liquidated Damages” is synonymous with “Delay Damages.”
1.1.4.1	“Accepted Contract Amount” is synonymous with Contract Price”.

1.1.4.2	<p>Definition is revised as follows:</p> <p>[REVISED] “Contract Price” means the amount stated in the notice of award as the amount to be paid to the Contractor for performing the contract, including adjustments in accordance with the Contract and RA NO. 9184 Revised Implementing Rules and Regulations.</p>
1.1.4.3	<p>Definition is revised as follows:</p> <p>[REVISED]“Cost” means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, and is deemed to include profit.Consistent with the revision above, all other references to “plus profit” in the general conditions should be amended through the Particular Conditions.</p>
1.1.4.4	No revision.
1.1.4.5	No revision.
1.1.4.6	No revision.
1.1.4.7	<p>Definition is revised as follows:</p> <p>"Interim Payment Certificate" means a payment certificate issued under Clause 14 [<i>Contract Price and Payment</i>], other than the Final Payment Certificate.</p> <p>For the avoidance of doubt, the payment of an Interim Payment Certificate is covered by the term “Progress Payment” under the Implementing Rules and Regulations of Republic Act NO. 9184.”</p>
1.1.4.8	No revision.
1.1.4.9	No revision.
1.1.4.10	No revision.
1.1.4.11	No revision.

1.1.4.12	No revision.
1.1.4.13	“ Milestone ” means an item in the Schedule of Milestone Payment specifying completion of the activities in full or partially to the percentage stipulated therein.
1.1.4.14	“ Milestone Certificate ” means the certificate to be issued by the Engineer pursuant to Clause 14.12 in relation to the achievement or otherwise of Milestones.
1.1.4.15	“ Milestone Achievement Statement ” means a statement submitted by the Contractor as part of application under Clause 14 [Contract Price and Payment] for a Milestone Certificate.
1.1.4.16	“ Schedule of Milestone Payment ” means the schedule included in the Contract describing the Milestones which are to be achieved before the Contractor is entitled to be paid for each Milestone in accordance with the Contract.
1.1.5.1	No revision.
1.1.5.2	No revision.
1.1.5.3	No revision.
1.1.5.4	No revision.
1.1.5.5	No revision.
1.1.5.6	No revision.
1.1.5.7	No revision.
1.1.5.8	No revision.
1.1.6.1	No revision.
1.1.6.2	No revision.

1.1.6.3	No revision.
1.1.6.4	No revision.
1.1.6.5	No revision.
1.1.6.6	No revision.
1.1.6.7	No revision.
1.1.6.8	No revision.
1.1.6.9	No revision.
1.2 Interpretation	No revision.
1.3 Communications	<p><i>[REVISED]</i>Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices and requests, these communications shall be:</p> <p>(a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Appendix to Tender; and</p> <p>(b) delivered, sent or transmitted to the address for the recipient's communications as stated in the Appendix to Tender. However:</p> <p>(i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and</p> <p>(ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.</p> <p>Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Engineer or the other</p>

	<p>Party, as the case may be.</p> <p>[ADDITIONAL] For communications filed via approved electronic mail, the reckoning date of receipt shall be the date stated in the acknowledgement confirmation which should not be unreasonably delayed.</p> <p>Email submissions made beyond 8am to 5pm on a regular workday shall be considered as submitted on the following workday.</p> <p>Electronic signatures may be used in accordance with the Department of Information and Communications Technology (DICT) Philippine National Public Key Infrastructure (PNPKI) Guidelines.</p>
<p>1.4 Law and Language</p>	<p>No revision.</p>
<p>1.5 Priority of Documents</p>	<p>[REVISED] “The documents forming the Contract are to be taken as mutually explanatory of one another. For purposes of interpretation, the priority of documents shall be in accordance with the following order sequence:</p> <ul style="list-style-type: none"> a) The Contract Agreement; b) The Bid Data Sheet; c) The Instructions to Bidders; d) The Addenda to the Bidding Documents; e) The Particular Conditions (Part A and Part B); f) These General Conditions of Contract; and g) Employer’s Requirements.”
<p>1.6 Contract Agreement</p>	<p>[REVISED]The Parties shall enter into a Contract Agreement within 10 days from receipt of the notice of award by the Contractor. The Contract Agreement shall be in the same form as the document denominated “FORM OF CONTRACT AGREEMENT” in the bidding documents. The costs of notarial fees and documentary stamp tax and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Contractor. The Contract shall come into full force and effect on the date of LOAN AGREEMENT effectivity.”</p>

<p>1.7 Assignment</p>	<p><i>[REVISED]</i>Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party, subject to applicable government auditing regulations, and executive agreement covering the Project.</p>
<p>1.8 Care and Supply of Documents</p>	<p>No revision.</p>
<p>1.9 Errors in the Employer's Requirements</p>	<p><i>[REVISED]</i>If the Contractor suffers delay and/or incurs Cost as a result of an error in the Employer's Requirements, and an experienced Contractor exercising due care would not have discovered the error when scrutinizing the Employer's Requirements under Sub-Clause 5.1 [<i>General Design Obligations</i>], the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [<i>Contractor's Claims</i>] to:</p> <p>(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [<i>Extension of Time for Completion</i>], and</p> <p>“(b) payment of any such Cost, which shall be included in the Contract Price; provided, that the cumulative amount of the variation does not exceed 10% of the accepted contract amount/contract price.”</p> <p>After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [<i>Determinations</i>] and Sub-clause 13.1 [<i>Right to Vary</i>] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been so discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.</p>
<p>1.10 Employer's Use of Contractor's Documents</p>	<p><i>[REVISED]</i>The Contractor's documents, including all plans, drawings, specifications, designs, reports, other documents and software prepared by the Contractor for the Employer under the Contract, shall become and remain the property of the Employer. The Contractor shall, prior to termination or</p>

expiration of the Contract, deliver all such documents to the Employer, together with a detailed inventory thereof. The Contractor may retain a copy of such documents and software. However, the Contractor shall not reproduce or disclose such documents to a third party.

The Contractor shall be deemed (by signing the Contract) to transfer to the Employer the Copyright to the Contractor's documents. This copyright shall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,
- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- (c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

The Contractor's Documents and other design documents made by (or on behalf of) the Contractor may, without the Contractor's consent, be used, copied, or communicated to a third party by (or on behalf of) the Employer for any purpose.

1.11 Contractor's Use of Employer's Documents

No revision.

1.12 Confidential Details

Replace the text of Sub-Clause 1.12 with the following:

The Contractor **and the Contractor's personnel** shall disclose all such confidential and other information as the Engineer **or the Employer** may be reasonably required in order to verify the Contractor's compliance with the **Contract and allow its proper implementation, and for the required auditing in accordance with existing and applicable audit laws, rules, and regulations.**

	<p>Except with the prior written consent of the Employer, the Contractor and the Contractor’s Personnel shall not at any time communicate to any person or entity any confidential information acquired in the course of the Contract, nor shall the Contractor and the Contractor’s Personnel make public the recommendations formulated in the course of, or as a result of, the Contract. For purposes of this clause, “confidential information” means any information or knowledge acquired by the Contractor and/or the Contractor’s Personnel arising out of, or in connection with, the performance of the Contract that is not otherwise available to the public.</p>
<p>1.13 Compliance with Laws</p>	<p>[ADDITIONAL] “This Contract shall be interpreted in accordance with the Laws of the Republic of the Philippines.” The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the Particular Conditions:</p> <p>(a) the Employer shall have obtained (or shall obtain) the planning, zoning or similar permission for the Permanent Works, and any other permissions described in the Employer's Requirements as having been (or being) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and</p> <p>(b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licenses and approvals, as required by the Laws in relation to the design, execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so.</p>
<p>1.14 Joint and Several Liability</p>	<p>No revision.</p>
<p>1.15 Inspections and Audits</p>	<p>Add a new Sub-Clause 1.15:</p> <p>The Employer’s Personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check</p>

the progress of the construction.

If the Employer's Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no defect, the test shall be a Compensation Event.

The Contractor shall permit the Employer (or the Funding Source named in the Contract Data if there are any) to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer (or the Funding Source, if so required by the Funding Source).

Clause 2 The Employer

2.1 Right of Access to the Site

[REVISED] The Employer shall give the Contractor right of access to, and possession of, all or parts of the Site as **stated in the Contract Data, within the time (or times) stated in the Contract Data, to enable the Contractor to proceed with the execution of the Works.** The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Employer's Requirements. However, the Employer may withhold any such right or possession until the Performance Security has been received.

If no such time is stated in the Appendix to Tender, the Employer shall give the Contractor right of access to, and possession of, the Site within such times as may be required to enable the Contractor to proceed in accordance with the programme submitted under Sub-Clause 8.3 [*Programme*].

[ADDITIONAL] **The Employer is responsible for the clearing or the site including removal/relocation of all the residents living within the row, and dismantle and remove all the existing obstacles including public utilities.**

If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession

	<p>within such time, the Contractor shall give notice to the Engineer within 7 days of the expiration of the time stated in the Contract Data for giving such right or possession and shall be entitled subject to Sub-Clause 20.1 [<i>Contractor's Claims</i>] to:</p> <p>(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [<i>Extension of Time for Completion</i>], and</p> <p>(b) payment of any such Cost plus reasonable profit, which shall be included in the Contract Price.</p>
<p>2.2 Permits, Licenses or Approvals</p>	<p>No revision.</p>
<p>2.3 Employer's Personnel</p>	<p>No revision.</p>
<p>2.4 Employer's Financial Arrangements</p>	<p>Not Applicable.</p>
<p>2.5 Employer's Claims</p>	<p>No revision.</p>
<p>Clause 3 The Engineer</p>	
<p>3.1 Engineer's Duties and Authority</p>	<p><i>[REVISED]</i>The Employer shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.</p> <p>The Engineer shall have no authority to amend the Contract.</p> <p>The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the</p>

	<p>requirements shall be as stated in the Particular Conditions.</p> <p>Except as otherwise stated in these Conditions:</p> <p>(a) whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Employer;</p> <p>(b) the Engineer has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract; and</p> <p>(c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances.</p>
3.2 Delegation by the Engineer	No revision.
3.3 Instructions of the Engineer	No revision.
3.4 Replacement of the Engineer	<p>If the Employer intends to replace the Engineer, the Employer shall, not less than 42 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended replacement Engineer.</p> <p>Should there be reasonably objection on the replacement of the Engineer, the Contractor shall submit it in writing, for Employer's consideration.</p>
3.5 Determinations	No revision.
Clause 4 The Contractor	
4.1 Contractor's General Obligations	<p><i>[REVISED]</i>The Contractor shall design, execute and complete the Works properly and in accordance with the Contract, and shall remedy any defects in the Works, exercising the due care and diligence expected of an experienced contractor.</p> <p>When completed, the Works shall be fit for the purposes for</p>

which the Works are intended as defined in the Contract.

The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, **Materials, Contractor's equipment, Supervision**, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution and remedying of defects.

The Works shall include any work which is necessary to satisfy the Employer's Requirements, Contractor's Proposal and Schedules, or is implied by the Contract, and all works which (although not mentioned in the Contract) are necessary for stability or for the completion, or safe and proper operation, of the Works.

The Contractor shall be responsible for the adequacy, stability and safety of all Site operations, of all methods of construction and of all the Works.

The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

4.2 Performance Security

[REVISED] The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount and currencies stated in the **Contract Data**.

Within ten (10) calendar days from receipt of the notice of award from the employer but in no case later than prior to the signing of the contract agreement, the Contractor shall furnish the Performance Security in any of the forms prescribed in this sub-clause 4.2. "The Performance Security posted in favor of the Employer shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.

The Performance Security shall remain valid until issuance by the Employer of the Performance Certificate.

The Performance Security may be released by the Employer and returned to the Contractor after the issuance of the performance certificate, subject to the following conditions:

- (a) There are no pending claims against the Contractor or the surety company filed by the Employer;**
- (b) The Contractor has no pending claims for labor and materials filed against it; and**
- (c) Other terms specified in the PCC.**

The Contractor shall post an additional performance security following the amount and form specified in ITB clause 32.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the Contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case may be. The Contractor shall cause the extension of the validity of the Performance Security to cover approved contract time extensions.

In case of a reduction in the contract value or for partially completed works under the Contract which are usable and accepted by the Employer the use of which, in the judgment of the implementing agency or the Employer, will not affect the structural integrity of the entire project, the employer shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.

The contractor, by entering into the contract with the employer, acknowledges the right of the employer to institute action pursuant to act no. 3688, entitled “an act for the protection of persons furnishing material and labor for the construction of public works”, against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the contractor with labor, materials and/or equipment for the performance of this contract.

4.3 Contractor's Representative	No revision.
4.4 Subcontractors	<p><i>[REVISED]</i> The Contractor shall not subcontract the whole of the Works.</p> <p>The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Particular Conditions:</p> <p>(a) the Contractor shall not be required to obtain consent to suppliers of Materials, or to a subcontract for which the Subcontractor is named in the Contract;</p> <p>(b) the prior consent of the Employer shall be obtained prior to other proposed Subcontractors, each of whom must meet the eligibility criteria and requirements set out in ITB Clause 8.2; and</p> <p>(c) the Contractor shall give the Engineer not less than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site.</p>
4.5 Nominated Subcontractors	Not Applicable.
4.6 Co-operation	<p><i>[REVISED]</i>The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:</p> <p>(a) the Employer's Personnel,</p> <p>(b) any other contractors employed by the Employer, and</p> <p>(c) the personnel of any legally constituted public authorities, who may be employed in the execution on or near the Site of any work not included in the Contract.</p> <p>The Contractor shall be responsible for his construction activities on the Site, and shall co-ordinate his own activities with those of other contractors to the extent (if any) specified in</p>

	<p>the Employer's Requirements.</p> <p>If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Engineer in the time and manner stated in the Employer's Requirements.</p>
<p>4.7 Setting Out</p>	<p><i>[REVISED]</i> To delete 2nd, 3rd, and 4th paragraphs. The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.</p>
<p>4.8 Safety Procedures</p>	<p><i>[REVISED]</i> The Contractor shall:</p> <ul style="list-style-type: none"> (a) comply with all applicable safety regulations, (b) take care for the safety of all persons entitled to be on the Site, (c) use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons, (d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [<i>Employer's Taking Over</i>], and (e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land; and (f) Be responsible for the safety of all activities on the site, and comply with DPWH DO NO. 39s 2020 relating to COVID-19 prevention.
<p>4.9 Quality Assurance</p>	<p>No revision.</p>

<p>4.10 Site Data</p>	<p><i>[REVISED]</i> Amend the first paragraph of Sub-Clause 4.10 by adding the last sentence and additional paragraph, as follows:</p> <p>The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer’s possession on sub-surface and hydrological conditions at the <u>Site</u>, including environmental aspects. The Employer shall similarly make available to the Contractor all such data which come into the Employer’s possession after the <u>Base Date</u>. The Contractor shall be responsible for interpreting all such data. The Employer does not guarantee that such data are fully correct, up to date, and applicable to the works. The Contractor shall be responsible for the accuracy and applicability of all data that it will use in its design and execution of the works.</p> <p>The acquisition of right-of-way and the conduct of eminent domain proceedings shall still be the responsibility of the Employer, which shall include a preliminary budget for this purpose.</p>
<p>4.11 Sufficiency of the Accepted Contract Amount</p>	<p>No revision.</p>
<p>4.12 Unforeseeable Physical Conditions</p>	<p>No revision.</p>
<p>4.13 Rights of Way and Facilities</p>	<p>No revision.</p>
<p>4.14 Avoidance of Interference</p>	<p>No revision.</p>
<p>4.15 Access Route</p>	<p>No revision.</p>
<p>4.16 Transport of</p>	<p>No revision.</p>

Goods	
4.17 Contractor's Equipment	No revision.
4.18 Protection of the Environment	<p><i>[REVISED]</i> Amend Sub-Clause 4.18 by adding the following text at the end:</p> <p>The Contractor shall take all reasonable steps to protect the environment (both on and off the <u>Site</u>) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.</p> <p>The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values indicated in the <u>Employer's Requirements</u>, and shall not exceed the values prescribed by applicable <u>Laws</u>.</p> <p><i>[ADDITIONAL]</i> The Contractor shall be responsible for ensuring that all subcontractor's and contractor's personnel understand and operate in accordance with the principles and requirements of the environmental and social impacts provisions of this Sub-clause.</p> <p>The Contractor's program shall clearly demonstrate the procedures and methods of working that the Contractor and its subcontractors will adopt to comply with the environmental and social impacts requirements of this Sub-clause.</p> <p>The Contractor shall ensure the adequate disposal of construction and excavation wastes in accordance with existing laws, rules, and regulations.</p> <p>The Contractor shall restore the Site to original conditions or to a state as set out in the Employer's Requirements after the completion of the Works.</p>
4.19 Electricity, Water and Gas	No revision.
4.20 Employers Equipment and Free-Issue	No revision.

Material

4.21 Progress Reports

[REVISED]Unless otherwise stated in the Particular Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates. **The Contractor shall also prepare and submit to the Engineer progress reports covering periods, such as quarterly, yearly, or a period beginning from the commencement date according to the instruction of the Engineer.”**

Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

Each report shall include:

(a) charts and detailed descriptions of progress, including each stage of design, Contractor’s Documents, procurement, manufacture, delivery to Site, construction, erection, testing, commissioning and trial operation;

(b) photographs showing the status of manufacture and of progress on the Site;

(c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:

- (i) commencement of manufacture,
- (ii) Contractor’s inspections,
- (iii) tests, and
- (iv) shipment and arrival at the Site;

(d) the details described in Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment];

(e) copies of quality assurance documents, test results and certificates of Materials;

(f) list of Variations, notices given under Sub-Clause 2.5 [Employer’s Claims] and notices given under Sub-Clause 20.1

	<p>[Contractor's Claims];</p> <p>(g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and</p> <p>(h) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays; And</p> <p>(i) Other documents related to the progress report required by the Employer.</p>
<p>4.22 Security of the Site</p>	<p>No revision.</p>
<p>4.23 Contractor's Operations on Site</p>	<p>No revision.</p>
<p>4.24 Fossils</p>	<p><i>[REVISED]</i>All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings. The ownership and care of such items of geological or archeological interest shall be governed by the Laws of the country.</p>
<p>Clause 5 Design</p>	
<p>5.1 General Design Obligations</p>	<p><i>[REVISED]</i>Delete the third and fourth paragraphs of Sub-Clause 5.1.</p> <p>The Contractor shall carry out, and be responsible for, the design of the Works. Design shall be prepared by qualified designers who are engineers or other professionals who comply with the criteria (if any) stated in the Employer's Requirements. Unless otherwise stated in the Contract, the Contractor shall</p>

	<p>submit to the Engineer for consent the name and particulars of each proposed designer and design Subcontractor.</p> <p>The Contractor warrants that he, his designers and design Subcontractors have the experience and capability necessary for the design. The Contractor undertakes that the designers shall be available to attend discussions with the Engineer at all reasonable times, until the expiry date of the relevant Defects Notification Period.</p>
<p>5.2 Contractor's Documents</p>	<p><i>[REVISED]</i> Amend the second paragraph of Sub-Clause 5.2 by adding the following sentence at the end:</p> <p>The Contractor's Documents shall comprise the technical documents specified in the Employer's Requirements, documents required to satisfy all regulatory approvals, and the documents described in Sub-Clause 5.6 [As-Built Documents] and Sub-Clause 5.7 [Operation and Maintenance Manuals]. Unless otherwise stated in the Employer's Requirements, the Contractor's Documents shall be written in the language for communications defined in Sub-Clause 1.4 [Law and Language]</p> <p>The Contractor shall prepare all Contractor's Documents, and shall also prepare any other documents necessary to instruct the Contractor's Personnel. The Employer's Personnel shall have the right to inspect the preparation of all these documents, wherever they are being prepared. The Contractor shall be responsible for the submission of all necessary detailed engineering investigations, surveys and designs in accordance with the provisions of Annex 'A' of the Implementing Rules and Regulations of Republic Act No. 9184.</p> <p>If the Employer's Requirements describe the Contractor's Documents which are to be submitted to the Engineer for review and/or for approval, they shall be submitted accordingly, together with a notice as described below. In the following provisions of this Sub-Clause, (i) "review period" means the period required by the Engineer for review and (if so specified) for approval, and (ii) "Contractor's Documents" exclude any documents which are not specified as being</p>

required to be submitted for review and/or for approval.

“Unless otherwise stated in the Employer’s Requirements, **or unless the engineer requires an extension of the review period not exceeding 7 days**, each review period shall not exceed 21 days, calculated from the date on which the Engineer receives a Contractor’s Document and the Contractor’s notice. This notice shall state that the Contractor's Document is considered ready, both for review (and approval, if so specified) in accordance with this Sub-Clause and for use. The notice shall also state that the Contractor's Document complies with the Contract, or the extent to which it does not comply.

For each part of the Works, and except to the extent that the prior approval or consent of the Engineer shall have been obtained:

(a) in the case of a Contractor's Document which has (as specified) been submitted for the Engineer’s approval:

(i) the Engineer shall give notice to the Contractor that the Contractor's Document is approved, with or without comments, or that it fails (to the extent stated) to comply with the Contract;

(ii) execution of such part of the Works shall not commence until the Engineer has approved the Contractor's Document **and until the Employer has approved the detailed engineering designs**; and

(b) execution of such part of the Works shall not commence prior to the expiry of the review periods for all the Contractor's Documents which are relevant to its design and execution;

(c) execution of such part of the Works shall be in accordance with these reviewed (and, if specified, approved) Contractor's Documents; and

(d) if the Contractor wishes to modify any design or document which has previously been submitted for review (and, if specified, approval), the Contractor shall immediately give notice to the Engineer. Thereafter, the Contractor shall submit revised documents to the Engineer in accordance with the above procedure.

	<p>If the Engineer instructs that further Contractor's Documents are required, the Contractor shall prepare them promptly.</p> <p>Any such approval or consent, or any review (under this Sub-Clause or otherwise), shall not relieve the Contractor from any obligation or responsibility. The Employer shall review, order rectification, and approve or disapprove – for implementation only the submitted plans within these schedules. All instructions for rectification shall be in writing stating the reasons for such rectification. The Contractor shall be solely responsible for the integrity of the detailed engineering design and the performance of the structure notwithstanding any approval or confirmation for the detailed engineering design given by the Employer.</p>
<p>5.3 Contractor's Undertaking</p>	<p>No revision.</p>
<p>5.4 Technical Standards and Regulations</p>	<p><i>[REVISED]</i> The Contractor shall prepare all specifications and designs using the metric system and shall embody the best design criteria applicable to Philippine conditions. The contractor shall specify standards which are accepted and well-known among industrial nations. The design, the Contractor's Documents, the execution and the completed Works shall comply with the Country's technical standards, building, construction and environmental Laws, Laws applicable to the product being produced from the Works, and other standards specified in the Employer's Requirements, applicable to the Works, or defined by the applicable Laws.</p> <p>All these Laws shall, in respect of the Works and each Section, be those prevailing when the Works or Section are taken over by the Employer under Clause 10 [Employer's Taking Over]. References in the Contract to published standards shall be understood to be references to the edition applicable on the Base Date, unless stated otherwise.</p> <p>If changed or new applicable standards come into force in the Country after the Base Date, the Contractor shall give notice to the Engineer and (if appropriate) submit proposals for compliance. In the event that:</p>

	<p>(a) the Engineer determines that compliance is required, and</p> <p>(b) the proposals for compliance constitute a variation,</p> <p>then the Engineer shall initiate a Variation in accordance with Clause 13 [Variations and Adjustments].</p>
<p>5.5 Training</p>	<p>No revision.</p>
<p>5.6 As-Built Documents</p>	<p>[REVISED] The Contractor shall prepare, and keep up-to-date, a complete set of "as-built" records of the execution of the Works, showing the exact as-built locations, sizes and details of the work as executed. These records shall be kept on the Site and shall be used exclusively for the purposes of this Sub-Clause. Three physical copies and one in USB format shall be supplied to the Engineer prior to the commencement of the Tests on Completion.</p> <p>In addition, the Contractor shall supply to the Engineer as-built drawings of the Works, showing all Works as executed, and submit them to the Engineer for review under Sub-Clause 5.2 [Contractor's Documents]. The Contractor shall obtain the consent of the Engineer as to their size, the referencing system, and other relevant details.</p> <p>Prior to the issue of any Taking-Over Certificate, the Contractor shall supply to the Engineer the specified numbers and types of copies of the relevant as-built drawings, in accordance with the Employer's Requirements. The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until the Engineer has received these documents. If "As Built" drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates of issuing taking-over certificate.</p>
<p>5.7 Operation and Maintenance Manuals</p>	<p>[REVISED] Prior to commencement of the Tests on Completion, the Contractor shall supply to the Engineer provisional operation and maintenance manuals in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair the Plant. If 'as built' drawings</p>

	<p>or operating and maintenance manuals are required, the contractor shall supply them by the dates stated in the contract data.</p> <p>The Works shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until the Engineer has received final operation and maintenance manuals in such detail, and any other manuals specified in the Employer's Requirements for these purposes.</p>
<p>5.8 Design Error</p>	<p>No revision.</p>
<p>Clause 6 Staff and Labour</p>	
<p>6.1 Engagement of Staff and Labour</p>	<p><i>[REVISED]</i> Except as otherwise stated in the Employer's Requirements, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, feeding, transport, and, when appropriate and necessary, housing.</p> <p>The Contractor shall comply with the provisions of the laws of the country regarding the employment of skilled and unskilled labour.</p>
<p>6.2 Rates of Wages and Conditions of Labour</p>	<p>Amend the first sentence of Sub-Clause 6.2 to read as follows:</p> <p>The Contractor shall pay the rates of wages, and observe conditions of labor, that are not lower than those required by the laws of the country and those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.</p> <p><i>[ADDITIONAL]</i> If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe Conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.</p>

<p>6.3 Persons in the Service of Employer</p>	<p>No revision.</p>
<p>6.4 Labour Laws</p>	<p>The Contractor shall comply, and ensure that each subcontractor shall comply, with all the relevant labour Laws applicable to the Contractor's Personnel and to the personnel of each subcontractor, respectively, including Laws relating to their employment, health, safety, welfare, immigration, emigration, and shall allow them, and ensure that each subcontractor shall allow them, all their legal rights.</p> <p>The Contractor shall require his employees, and ensure that each subcontractor shall require their respective employees to obey all applicable Laws, including those concerning their safety at work.</p>
<p>6.5 Working Hours</p>	<p>[REVISED] The Contractor shall comply, and ensure that each subcontractor shall comply, with all the relevant laws of the country regarding public holidays. No work shall be carried out on the <u>Site</u> on locally recognised <u>days</u> of rest, or outside the normal working hours stated in the <u>Appendix to Tender</u>, unless:</p> <ul style="list-style-type: none"> (a) otherwise stated in the Contract; (b) the Engineer gives consent; (c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer; OR (d) As may be stated in the Employer's requirement.
<p>6.6 Facilities for Staff and Labour</p>	<p>[REVISED] Except as otherwise stated in the Employer's Requirements, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel, including those required by the laws of the country. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Employer's Requirements.</p> <p>The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the <u>Permanent Works</u>.</p>

<p>6.7 Health and Safety</p>	<p>Inserting the following sentences at the start:</p> <p>[ADDITIONAL] The Contractor shall be fully responsible for the safety, protection, security, and convenience of the Contractor’s personnel. The obligations of the Contractor set out in this sub-clause 6.7 are without prejudice to the obligation of the Contractor under sub-clause 6.4 to comply with laws relating to the health and safety of the Contractor’s personnel. The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the <u>Contractor's Personnel</u>. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and ambulance service are available at all times at the <u>Site</u> and at any accommodation for Contractor’s and <u>Employer's Personnel</u>, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.</p> <p>The Contractor shall appoint an accident prevention officer at the <u>Site</u>, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the <u>Works</u>, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.</p> <p>The Contractor shall send, to the Employer and Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require, and in no case later than the deadline for submission of the accident report to the Department of Labor and Employment.”</p>
<p>6.8 Contractor’s Superintendence</p>	<p>No revision.</p>
<p>6.9 Contractor's</p>	<p>The Contractor’s Personnel shall be appropriately qualified, skilled and experienced in their respective trades or</p>

<p>Personnel</p>	<p>occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the <u>Site</u> or <u>Works</u>, including the <u>Contractor's Representative</u> if applicable, who:</p> <ul style="list-style-type: none"> (a) persists in any misconduct or lack of care, (b) carries out duties incompetently or negligently, (c) fails to conform with any provisions of the Contract, or (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment. <p>If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person, subject to the approval of the Employer.</p> <p>[ADDITIONAL] The Contractor shall employ the key personnel named in the technical proposal to carry out the design and execution of the works. The Employer will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the technical proposal.</p> <p>If the Engineer or through the instruction of the Employer asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the site within 7 days and has no further connection with the activities in this Contract.</p>
<p>6.10 Records of Contractor's Personnel and Equipment</p>	<p>Adding the following at the end:</p> <p>The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of <u>Contractor's Equipment</u> on the <u>Site</u>. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the <u>Taking-Over Certificate</u> for the <u>Works</u>. The Contractor shall</p>

	submit such details for such periods as may be required by the Employer, such as quarterly, yearly, or a period beginning from the Commencement Date.
6.11 Disorderly Conduct	No revision.
Clause 7 Plant, Materials and Workmanship	
7.1 Manner of Execution	No revision.
7.2 Samples	<p>The Contractor shall submit the following samples of <u>Materials</u>, and relevant information, to the Engineer for review in accordance with the procedures for <u>Contractor's Documents</u> described in <u>Sub-Clause 5.2 [Contractor's Documents]</u>:</p> <p style="padding-left: 40px;">Manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost.</p> <p style="padding-left: 40px;">Each sample shall be labelled as to origin and intended use in the Works.</p>
7.3 Inspection	No revision.
7.4 Testing	<p>[REVISED] This Sub-Clause shall apply to all tests specified in the <u>Contract</u>, other than the Tests after Completion (if any).</p> <p>The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any <u>Plant, Materials</u> and other parts of the Works.</p> <p>The Engineer may, under <u>Clause 13 [Variations and Adjustments]</u>, vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested <u>Plant, Materials</u> or workmanship is not in accordance with the <u>Contract</u>, the cost of carrying out this <u>Variation</u> shall be borne by the Contractor, notwithstanding other provisions of the Contract.</p>

The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.

If the Contractor suffers delay and/or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.5 Rejection	No revision.
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7.6 Remedial Work	<p>[REVISED] Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:</p> <ul style="list-style-type: none"> (a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract, (b) remove and re-execute any other work which is not in accordance with the Contract, and (c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.
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	<p>The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).</p>
<p>7.7 Ownership of Plant and Materials</p>	<p><i>[REVISED]</i> Each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, become the property of the Employer, free from liens and other encumbrances when it is delivered to the Site.</p>
<p>7.8 Royalties</p>	<p><i>[REVISED]</i> Unless otherwise stated in the <u>Employer's Requirements</u>, the Contractor shall pay all royalties, rents and other payments for:</p> <ul style="list-style-type: none"> (a) natural <u>Materials</u> obtained from outside the <u>Site</u>, and (b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the <u>Site</u> are specified in the <u>Contract</u>. If the material referred to in item (b) is owned by an agency of the national or local government of the country, then the disposal of such material shall comply with applicable laws of the country.
<p>Clause 8 Commencement, Delays and Suspension</p>	
<p>8.1 Commencement of Works</p>	<p><i>[REVISED]</i></p> <p>Within 7 days after the date of approval of the Contract by the appropriate government approving authority, the Engineer, on behalf of the Employer, shall issue the Notice to Proceed to the Contractor and give the Contractor a copy of the approved Contract. The Notice to Proceed shall state the Commencement Date.</p> <p>The Contractor shall commence the design of the Works not later than the commencement date. The Contractor shall commence the execution of the works within 14 days after the receipt by the Contractor of all approvals of the Contractor's documents in accordance with sub-clause 5.2".</p>

<p>8.2 Time for Completion</p>	<p>No revision.</p>
<p>8.3 Programme</p>	<p>[REVISED] Amend the chapeau of the first paragraph of Sub-Clause 8.3 to read as follows:</p> <p>The Contractor shall submit to the Engineer, for the Employer's approval:</p> <p>(1) A detailed time program within 28 days from the issuance of the notice to proceed under sub-clause 8.1;</p> <p>(2) An updated programme at intervals no longer than the period stated in the Contract Data, where, in addition to the items listed below, such updated programme shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities; provided, that if the Contractor does not submit an updated programme within the required period, the Employer may withhold the amount stated in the contract data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue programme has been submitted; and</p> <p>(3) A revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations, where, in addition to the items listed below, such revised programme shall show the effect of any approved variations.</p> <p>Each programme shall include:</p> <p>(a) the order in which the Contractor intends to carry out the <u>Works</u>, including the anticipated timing of each stage of design, <u>Contractor's Documents</u>, procurement, manufacture, inspection, delivery to <u>Site</u>, construction, erection, testing, commissioning and trial operation,</p> <p>(b) the periods for reviews under <u>Sub-Clause 5.2 [Contractor's Documents]</u> and for any other submissions, approvals and consents specified in the <u>Employer's Requirements</u>,</p> <p>(c) the sequence and timing of inspections and tests</p>

specified in the Contract, and

(d) a supporting report which includes:

(i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and

(ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.

The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Engineer may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances, and/or a proposal under Sub-Clause 13.3 [Variation Procedure].

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this Sub-Clause.

8.4 Extension of Time for Completion

[REVISED] The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking Over of the Works and Sections] is or will be delayed by any of the following causes:

(a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [Variation Procedure]),

(b) a cause of delay giving an entitlement to extension of

time under a Sub-Clause of these Conditions,
(c) exceptionally adverse climatic conditions,
(d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
(e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors on the Site.

The Engineer is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the Contract time and within 30 days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered such notice to the Engineer in order that the Engineer could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the Engineer shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the Engineer's opinion, the findings of facts justify an extension."

No extension of contract time shall be granted the Contractor:

- (a) due to ordinary unfavorable weather conditions;**
- (b) due to inexcusable failure or negligence of the contractor to provide the required equipment, supplies or materials; or**
- (c) when the reason given to support the request for extension was already considered in the determination of the original contract time."**

"The written consent of bondsmen must be attached to any request of the Contractor for extension of contract time and submitted to the Employer for consideration and the validity of the performance security shall be correspondingly extended.

Amend the second paragraph of sub-clause 8.4 by adding the following at the end:

	<p>“The Engineer is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the contract time and within 30 days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered such notice to the Engineer in order that the Engineer could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the Engineer shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the Engineer’s opinion, the findings of facts justify an extension.”</p> <p>“No extension of contract time shall be granted the Contractor</p> <p>(a) due to ordinary unfavorable weather conditions;</p> <p>(b) due to inexcusable failure or negligence of the Contractor to provide the required equipment, supplies or materials; or</p> <p>(c) when the reason given to support the request for extension was already considered in the determination of the original contract time.”</p> <p>“The written consent of bondsmen must be attached to any request of the Contractor for extension of contract time and submitted to the Employer for consideration and the validity of the performance security shall be correspondingly extended.”</p>
<p>8.5 Delays Caused by Authorities</p>	<p>No revision.</p>
<p>8.6 Rate of Progress</p>	<p>No revision.</p>
<p>8.7 Delay Damages</p>	<p><i>[REVISED THE WHOLE CLAUSE]</i></p> <p>(a) “The Contractor shall pay liquidated damages to the Employer for each day that the Completion Date is later than the Intended Completion Date. The applicable liquidated</p>

damages shall be one-tenth (1/10) of a percent of the cost of the unperformed portion of the Works for every day of delay.

(b) “The total amount of liquidated damages shall not exceed 10% of the amount of the Accepted Contract Amount. Once the cumulative amount of liquidated damages reaches 10% of the amount of the Contract, the Employer may terminate the Contract, without prejudice to the Employer’s other remedies.

(c) “The Employer does not need to prove that it incurred actual damages in order to be entitled to liquidated damages. The Employer may, at its option, deduct liquidated damages from payments due to the Contractor or collect such liquidated damages from the Retention Money or other securities posted by the Contractor.

(d) “Payment of liquidated damages shall not affect the Contractor’s liabilities.

(e) “If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

8.8 Suspension of Work

[REVISED] The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

Amend sub-clause 8.8 by adding the following as the third paragraph:

The Employer may direct the Engineer to instruct the Contractor to suspend progress of all or part of the works, for such period as the Employer may deem necessary, due to:

(a) force majeure;

	<p>(b) any fortuitous events; or</p> <p>(c) failure on the part of the Contractor to (i) correct bad conditions which are unsafe for workers or for the general public; (ii) carry out valid orders given by the Employer; or (iii) perform any provisions of the Contract; or</p> <p>(d) due to adjustment of plans to suit field conditions as found necessary during construction.</p>
<p>8.9 Consequences of Suspension</p>	<p>If the Contractor suffers delay and/or incurs <u>Cost</u> from complying with the Engineer's instructions under Sub-Clause 8.8 [<i>Suspension of Work</i>] and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled subject to <u>Sub-Clause 20.1</u> [<i>Contractor's Claims</i>] to an extension of time for any such delay, if completion is or will be delayed, under <u>Sub-Clause 8.4</u> [<i>Extension of Time for Completion</i>].</p> <p>After receiving this notice, the Engineer shall proceed in accordance with <u>Sub-Clause 3.5</u> [<i>Determinations</i>] to agree or determine these <u>matters</u>.</p> <p>The Contractor shall not be entitled to an extension of time for, or to payment of the <u>Cost</u> incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [<i>Suspension of Work</i>].</p>
<p>8.10 Payment for Plant and Materials in Event of Suspension</p>	<p>Not Applicable.</p>
<p>8.11 Prolonged Suspension</p>	<p><i>[REVISED]</i></p> <p>If the suspension under <u>Sub-Clause 8.8</u> [<i>Suspension of Work</i>] has continued for more than 84 <u>days</u>, the Contractor may request the Engineer's permission to proceed. The Contractor may terminate the Contract if the Engineer does not give</p>

	<p>permission within at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:</p> <p>a) Failure of the Procuring Entity to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of the contract; or</p> <p>b) The prosecution of the work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.</p>
<p>8.12 Resumption of Work</p>	<p>No revision.</p>

Clause 9 Tests on Completion

<p>9.1 Contractor's Obligations</p>	<p><i>[REVISED]</i> Amend Sub-Clause 9.1 by adding the a last paragraph, to wit:</p> <p>The Contractor shall carry out the <u>Tests on Completion</u> in accordance with this Clause and <u>Sub-Clause 7.4 [Testing]</u>, after providing the documents in accordance with <u>Sub-Clause 5.6 [As-Built Documents]</u> and <u>Sub-Clause 5.7 [Operation and Maintenance Manuals]</u>.</p> <p>The Contractor shall give to the Engineer not less than 21 <u>days</u>' notice of the date after which the Contractor will be ready to carry out each of the <u>Tests on Completion</u>. Unless otherwise agreed, <u>Tests on Completion</u> shall be carried out within 14 <u>days</u> after this date, on such <u>day</u> or <u>days</u> as the Engineer shall instruct.</p> <p>Unless otherwise stated in the Particular Conditions, the <u>Tests on Completion</u> shall be carried out in the following sequence:</p> <p>(a) pre-commissioning tests, which shall include the appropriate inspections and ("dry" or "cold") functional tests to demonstrate that each item of <u>Plant</u> can safely undertake the next stage, (b);</p> <p>(b) commissioning tests, which shall include the specified operational tests to demonstrate that the <u>Works</u> or <u>Section</u> can be operated safely and as specified, under all available</p>
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operating conditions; and

(c) trial operation, which shall demonstrate that the Works or Section perform reliably and in accordance with the Contract.

During trial operation, when the Works are operating under stable conditions, the Contractor shall give notice to the Engineer that the Works are ready for any other Tests on Completion, including performance tests to demonstrate whether the Works conform with criteria specified in the Employer's Requirements and with the Schedule of Guarantees.

Trial operation shall not constitute a taking-over under Clause 10 [Employer's Taking Over]. Unless otherwise stated in the Particular Conditions, any product produced by the Works during trial operation shall be the property of the Employer.

In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed each of the Tests on Completion described in sub-paragraph (a), (b) or (c), the Contractor shall submit a certified report of the results of these Tests to the Engineer.

Once the Project reaches an accomplishment of 95% of the total Contract Amount, the Employer may create an inspectorate team to make a preliminary inspection and submit to the Contractor, in preparation for the final turnover of the Project, a punch-list containing, among others, (i) the remaining works, (ii) work deficiencies for necessary corrections, and (iii) the specific duration/time to fully complete the project considering the approved remaining contract time. The submission of the punch-list shall not preclude the Employer from claiming for liquidated damages.

9.2 Delayed Tests

[REVISED]

If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor

	<p>to carry out the Tests within 21 <u>days</u> after receiving the notice.</p> <p>The Contractor shall carry out the Tests on such <u>day</u> or <u>days</u> within that period as the Contractor may fix and of which he shall give notice to the Engineer.</p> <p>If the Contractor fails to carry out the <u>Tests on Completion</u> within the period of 21 <u>days</u>, the <u>Employer's Personnel</u> may proceed with the Tests at the risk and cost of the Contractor. The <u>Tests on Completion</u> shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.</p>
<p>9.3 Retesting</p>	<p>No revision.</p>
<p>9.4 Failure to Pass Tests on Completion</p>	<p>Delete items (b) and (c) of the first paragraph of Sub-Clause 9.4.</p> <p>If the <u>Works</u>, or a <u>Section</u>, fail to pass the <u>Tests on Completion</u> repeated under <u>Sub-Clause 9.3 [Retesting]</u>, the Engineer shall be entitled to order further repetition of Tests on Completion under Sub-Clause 9.3;</p>
<p>Clause 10 Employer's Taking Over</p>	
<p>10.1 Taking Over of the Works and Sections</p>	<p><i>[REVISED]</i> Except as stated in <u>Sub-Clause 9.4 [Failure to Pass Tests on Completion]</u>, the <u>Works</u> shall be taken over by the Employer when (i) the <u>Works</u> have been completed in accordance with the <u>Contract</u>, including the matters described in <u>Sub-Clause 8.2 [Time for Completion]</u> and except as allowed in sub-paragraph (a) below, and (ii) a <u>Taking-Over Certificate</u> for the <u>Works</u> has been issued, or is deemed to have been issued in accordance with this Sub-Clause.</p> <p>The Contractor may apply by notice to the Engineer for a <u>Taking-Over Certificate</u> not earlier than 14 <u>days</u> before the <u>Works</u> will, in the Contractor's opinion, be complete and ready for taking over. If the <u>Works</u> are divided into <u>Sections</u>, the Contractor may similarly apply for a <u>Taking-Over Certificate</u> for each <u>Section</u>.</p> <p>The Engineer shall, within 28 <u>days</u> after receiving the</p>

	<p>Contractor's application:</p> <p>(a) issue the <u>Taking-Over Certificate</u> to the Contractor, stating the date on which the <u>Works</u> or <u>Section</u> were completed in accordance with the <u>Contract, and/or Employer's requirement</u>, except for any minor outstanding work and defects which will not substantially affect the use of the <u>Works</u> or <u>Section</u> for their intended purpose (either until or whilst this work is completed and these defects are remedied); or</p>
<p>10.2 Taking Over of Parts of the Works</p>	<p>Not Applicable.</p>
<p>10.3 Interference with Tests on Completion</p>	<p><i>[REVISED]</i></p> <p>The Engineer shall require the <u>Tests on Completion</u> to be carried out by giving 14 <u>days</u>' notice and in accordance with the relevant provisions of the <u>Contract</u>.</p> <p>If the Contractor suffers delay and/or incurs <u>Cost</u> as a result of this delay in carrying out the <u>Tests on Completion</u>, the Contractor shall give notice to the Engineer and shall be entitled subject to <u>Sub-Clause 20.1 [Contractor's Claims]</u> to:</p> <p>(a) an extension of time for any such delay, if completion is or will be delayed, under <u>Sub-Clause 8.4 [Extension of Time for Completion]</u>,</p> <p>After receiving this notice, the Engineer shall proceed in accordance with <u>Sub-Clause 3.5 [Determinations]</u> to agree or determine these matters.</p>
<p>10.4 Surfaces Requiring Reinstatement</p>	<p>No revision.</p>
<p>Clause 11 Defects Liability</p>	
<p>11.1 Completion of Outstanding Work and Remedying</p>	<p><i>[REVISED]</i> In order that the <u>Works</u> and <u>Contractor's Documents</u>, and each <u>Section</u>, shall be in the condition required by the <u>Contract</u> (fair wear and tear excepted) by the expiry date of the relevant <u>Defects Notification Period</u> or as soon as</p>

<p>Defects</p>	<p>practicable thereafter, the Contractor shall:</p> <p>Execute, within 90 days from the time the Employer issued an order to remedy, all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the defects notification period for the works or section (as the case may be).</p> <p>If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.</p>
<p>11.2 Cost of Remedying Defects</p>	<p>[REVISED] Amend item (a) of the first paragraph of Sub-Clause 11.2 to read as follows:</p> <p>All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:</p> <ul style="list-style-type: none"> (a) the design of the Works; (b) Plant, Materials or workmanship not being in accordance with the Contract, (c) improper operation or maintenance which was attributable to matters for which the Contractor is responsible (under Sub-Clauses 5.5 to 5.7 or otherwise), or (d) failure by the Contractor to comply with any other obligation. <p>If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer, and Sub-Clause 13.3 [Variation Procedure] shall apply.</p>
<p>11.3 Extension of Defects Notification Period</p>	<p>[REVISED] The Employer shall be entitled subject to <u>Sub-Clause 2.5 [Employer's Claims]</u> to an extension of the <u>Defects Notification Period</u> for the <u>Works</u> or a <u>Section</u> if and to the extent that the <u>Works</u>, <u>Section</u> or a major item of <u>Plant</u> (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or damage. However, a <u>Defects Notification Period</u> shall not be</p>

	<p>extended by more than two <u>years</u> in a single instance.</p> <p>If delivery and/or erection of <u>Plant</u> and/or <u>Materials</u> was suspended under <u>Sub-Clause 8.8</u> [<i>Suspension of Work</i>] or <u>Sub-Clause 16.1</u> [<i>Contractor's Entitlement to Suspend Work</i>], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two <u>years</u> after the Defects Notification Period for the <u>Plant</u> and/or <u>Materials</u> would otherwise have expired.</p>
<p>11.4 Failure to Remedy Defects</p>	<p>[REVISED]</p> <p>If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed cost of the Contractor under <u>Sub-Clause 11.2</u> [<i>Cost of Remedying Defects</i>], the Employer may (at his option):</p> <p>Undertake such remedial work, in which case the Employer shall be entitled to full reimbursement of expenses incurred therein reasonably incurred by; or if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.</p>
<p>11.5 Removal of Defective Work</p>	<p>[REVISED] If the defect or damage cannot be remedied expeditiously on the <u>Site</u> and the Employer gives consent, the Contractor may remove from the <u>Site</u> for the purposes of repair such items of <u>Plant</u> as are defective or damaged. This consent may require the Contractor to increase the amount of the <u>Performance Security</u> by the full replacement cost of these items.</p>
<p>11.6 Further Tests</p>	<p>Amend the second paragraph of Sub-Clause 11.6 to read as follows:</p> <p>If the work of remedying of any defect or damage may affect the performance of the <u>Works</u>, the Engineer may require the</p>

	<p>repetition of any of the tests described in the <u>Contract</u>, including <u>Tests on Completion</u> and/or <u>Tests after Completion</u>. The requirement shall be made by notice within 28 <u>days</u> after the defect or damage is remedied.</p> <p>These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Contractor, under <u>Sub-Clause 11.2 [Cost of Remedying Defects]</u>, for the cost of the remedial work.</p>
<p>11.7 Right of Access</p>	<p>No revision.</p>
<p>11.8 Contractor to Search</p>	<p><i>[REVISED]</i> The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under <u>Sub-Clause 11.2 [Cost of Remedying Defects]</u>, the <u>Cost</u> of the search shall be agreed or determined by the Engineer in accordance with <u>Sub-Clause 3.5 [Determinations]</u> and shall be included in the <u>Contract Price</u>.</p>
<p>11.9 Performance Certificate</p>	<p>No revision.</p>
<p>11.10 Unfulfilled Obligations</p>	<p><i>[REVISED]</i> After the <u>Performance Certificate</u> has been issued, each <u>Party</u> shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the <u>Contract</u> shall be deemed to remain in force.</p> <p>After the issuance of the performance certificate, the following shall be held liable for (i) ‘structural defects’, i.e., major faults, flaws or deficiencies in one or more key structural elements of the Project which may lead to structural failure of the completed elements or structure; or (ii) ‘structural failures’, i.e., where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:</p> <p>(a) The Contractor shall be liable if the structural defects</p>

or the structural failures are due to (i) faulty or inadequate design and specifications; or (ii) improper construction, use of inferior quality/substandard materials, or any violation of the contract plans and specifications;

(b) The Contractor and the Engineer who prepared the design or undertook construction supervision for the project shall be liable if the structural defects or structural failures are due to faulty or inadequate design and specifications or construction supervision;

(c) Third parties shall be liable if the structural defects or the structural failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works;

(d) The users of the constructed facility shall be liable if the structural defects or the structural failures are due to abuse/misuse by the end user of the constructed facility and/or non-compliance by a user with the technical design limits and/or intended purpose of the same.

“The warranty against structural defects or structural failures, except those occasioned on force majeure, shall cover the periods specified in Section 62.2.3.2 of the Implementing Rules and Regulations of Republic Act NO. 9184, such periods to be reckoned from the date of issuance of the Performance Certificate.

“The contractor shall put up a warranty security in the form of cash, bank guarantee, letter of credit, GSIS or surety bond callable on demand, in accordance with the Section 62.2.3.3 of the Implementing Rules and Regulations of Republic Act NO. 9184.

“The warranty security shall be stated in Philippine pesos and shall remain effective for the periods stated in the Contract Data and shall be returned only after the lapse of

	<p>said periods.</p> <p>“In case of structural defects/failure occurring during the applicable warranty period, the Employer shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the Parties found to be liable for expenses incurred therein upon demand, without prejudice to the filing of appropriate administrative, civil, and/or criminal charges against the responsible persons as well as the forfeiture of the warranty security posted in favor of the Employer.</p>
<p>11.11 Clearance of Site</p>	<p>Amend the first paragraph of Sub-Clause 11.11 to read as follows:</p> <p>As a requirement for the issuance of the Performance Certificate, the Contractor shall remove any remaining Contractor’s Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.”</p> <p>“If all these items have not been removed by the time that the Engineer is ready to issue the Performance Certificate after the lapse of the 28-day period stated in sub-clause 11.9, the Employer may sell or otherwise dispose of any remaining items.”</p> <p>Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Employer’s costs, the Contractor shall pay the outstanding balance to the Employer, subject to existing laws of the country on disposal.</p>
<p>11.12</p>	<p>The provisions of Section 62.2 of the RA NO. 9184 Implementing Rules and Regulations on Warranties for Infrastructure Projects are adopted and shall be complied with by the Contractor.</p>
<p>Clause 12 Tests after Completion</p>	
<p>12.1 Procedure for Tests after Completion</p>	<p>[REVISED] If <u>Tests after Completion</u> are specified in the <u>Contract</u>, this Clause shall apply. Unless otherwise stated in the Particular Conditions, the Employer shall:</p> <p>(a) provide all electricity, equipment, fuel, instruments, labour, materials, and suitably qualified and experienced staff,</p>

	<p>as are necessary to carry out the Tests after Completion efficiently, and</p> <p>(b) carry out the Tests after Completion in accordance with the manuals supplied by the Contractor under Sub-Clause 5.7 [Operation and Maintenance Manuals] and such guidance as the Contractor may be required to give during the course of these Tests; and in the presence of such Contractor's Personnel as either Party may reasonably request.</p> <p>The <u>Tests after Completion</u> shall be carried out within 56 days after the <u>Works</u> or <u>Section</u> have been taken over by the Employer. The Employer shall give to the Contractor 21 <u>days</u>' notice of the date after which the <u>Tests after Completion</u> will be carried out. Unless otherwise agreed, these Tests shall be carried out within 14 <u>days</u> after this date, on the <u>day</u> or <u>days</u> determined by the Employer.</p> <p>If the Contractor does not attend at the time and place agreed, the Employer may proceed with the <u>Tests after Completion</u>, which shall be deemed to have been made in the Contractor's presence, and the Contractor shall accept the readings as accurate.</p> <p>The results of the <u>Tests after Completion</u> shall be compiled and evaluated by both <u>Parties</u>. Appropriate account shall be taken of the effect of the Employer's prior use of the <u>Works</u>.</p>
<p>12.2 Delayed Tests</p>	<p><i>[REVISED]</i> If the Contractor incurs <u>Cost</u> as a result of any unreasonable delay by the Employer to the <u>Tests after Completion</u>, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to <u>Sub-Clause 20.1</u> [<i>Contractor's Claims</i>] to payment of any such <u>Cost</u>, which shall be included in the <u>Contract Price</u>.</p> <p>After receiving this notice, the Engineer shall proceed in accordance with <u>Sub-Clause 3.5</u> [<i>Determinations</i>] to agree or determine this <u>Cost</u>:-</p>
<p>12.3 Retesting</p>	<p>No revision.</p>
<p>12.4 Failure to Pass Tests after</p>	<p>If the <u>Works</u>, or a <u>Section</u>, fail to pass a Test after Completion and the Contractor proposes to make adjustments or</p>

Completion

modifications to the Works or such Section, the Contractor may be instructed by (or on behalf of) the Employer that right of access to the Works or Section cannot be given until a time that is convenient to the Employer. The Contractor shall then remain liable to carry out the adjustments or modifications and to satisfy this Test, within a reasonable period of receiving notice by (or on behalf of) the Employer of the time that is convenient to the Employer.

If the Contractor incurs additional Cost as a result of any unreasonable delay by the Employer in permitting access to the Works or Plant by the Contractor, either to investigate the causes of a failure to pass a Tests after Completion or to carry out any adjustments or modifications, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such Cost which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this Cost.

Clause 13 Variations and Adjustments

13.1 Right to Vary

Amend the first sentence of the first paragraph of Sub-clause 13.1 to read as follows:

Variations may be initiated by the engineer at any time prior to issuing the taking-over certificate for the works, either by an instruction or by a request for the contractor to submit a proposal. A variation shall not comprise the omission of any work which is to be carried out by others. **At any time prior to issuing the taking-over certificate, the procedure for variations may be initiated by:**

“(a) The Engineer issuing an instruction with the prior written approval of the Employer obtained in accordance with the procedure under Paragraph 2 of Sub-clause 13.3;

“(b) The Engineer issuing an instruction without the prior written approval of the Employer in accordance with the conditions under Paragraphs 3 and 4 of

	<p style="text-align: center;">Sub-clause 13.3;</p> <p style="text-align: center;">“(c) The Engineer requesting the Contractor to submit a proposal under Paragraph 5 of Sub-clause 13.3; or</p> <p style="text-align: center;">“(d) The Contractor submitting a proposal under Sub-clause 13.2.”</p> <p>The Contractor shall execute and be bound by each <u>Variation</u>, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that (i) the Contractor cannot readily obtain the <u>Goods</u> required for the <u>Variation</u>, (ii) it will reduce the safety or suitability of the <u>Works</u>, or (iii) it will have an adverse impact on the achievement of the <u>Schedule of Guarantees</u>. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.</p>
<p>13.2 Value Engineering</p>	<p>[REVISED] The following text is added at the end of Sub Clause 13.2:</p> <p>The Contractor may, at any time, submit to the Engineer a written proposal which (in the Contractor’s opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the <u>Works</u>, (iii) improve the efficiency or value to the Employer of the completed <u>Works</u>, or (iv) otherwise be of benefit to the Employer.</p> <p>The proposal shall be prepared at the cost of the Contractor and shall include the items listed in <u>Sub-Clause 13.3 [Variation Procedure]</u>.</p> <p>“The Engineer shall not approve a variation on the basis of such proposal unless the requirements of the laws of the country have been complied with.”</p>
<p>13.3 Variation Procedure</p>	<p>[REVISED] Sub-Clause 13.3 (<i>Variation Procedure</i>) is replaced by the following provisions from Annex E, Sub-Clause 1.5, Sub-Clause 2.1, Sub-Clause 2.2, Sub-Clause 3.1, and 4.2 and Annex G Sub-Clause 13.5 of RA No. 9185 2016 Revised IRR:</p> <p>1. As a general rule, the Engineer shall not instruct or approve, and the Contractor shall not execute, a Variation unless the Employer has given its prior written approval for such</p>

Variation. The Engineer shall not instruct or approve a Variation involving changes in design and construction requirements unless such changes could not have been anticipated prior to the signing and approval of the Contract.

2. Where the Employer's approval is required for a Variation, as described in item (a) of Sub-Clause 13.1, the Engineer must obtain such approval in accordance with the following procedure within 30 days from the Engineer's submission of all the documents listed in item (a) below:

- (a) The Engineer shall submit to the Employer: (i) the draft instruction or approval for a proposed Variation; (ii) any notices submitted by the Contractor; (iii) the plans for the proposed Variation; (iv) the Engineer's computations as to quantities of additional works involved per item and information on the specific stations where such works are needed; (v) the date of the Engineer's inspections and investigations regarding the proposed Variation, and the log book thereof; (vi) a detailed estimate of the Cost of the proposed Variation; and (vii) the Engineer's justifications for such Variation;
- (b) Upon the Engineer's submission of all the documents listed in item (a) above, the Employer shall immediately instruct the Employer's Personnel to (i) conduct an on-the-spot investigation to verify the need for the work to be prosecuted; and (ii) review the proposed plan and Cost;
- (c) The Employer's Personnel shall submit to the Employer (i) a report of their findings and recommendations, and (ii) the supporting documents;
- (d) Upon receipt of the report and the supporting documents, the Employer may approve the draft instruction or approval after being satisfied that the same is justified, necessary, and in order.

3. As an exception, the Engineer may instruct, and the

Contractor may immediately execute, a Variation even without the prior written approval of the Employer, as described in item (b) of Sub-Clause 13.1, when:

- (a) there is an emergency requiring the urgent prosecution of the work to avoid detriment to public service, or damage to life and/or property; or
- (b) time is of the essence;

4. Notwithstanding the presence of any of the circumstances described in the immediately preceding paragraph, all of the following conditions must be met in cases where the Engineer instructed a Variation without the prior written approval of the Employer:

- (a) there are available funds and the Cost of the Variation is within the limits of the Engineer's delegated authority;
- (b) the Engineer's instruction shall be valid only for work the Cost of which does not exceed 5% of the Contract Price;
- (c) the Engineer shall, immediately after the start of work, submit its instruction to the Employer for approval;
- (d) the Cost of works satisfactorily accomplished may not be paid until the Employer has approved the Engineer's instruction;
- (e) the Engineer shall not instruct, and the Contractor shall not execute, a Variation without the Employer's prior written approval if the Engineer's instruction involves work the cumulative Cost of which exceeds 5% of the original Contract Price; and
- (f) within 7 days after the work has commenced, the Contractor shall deliver a notice to the Engineer giving full and detailed particulars of the Cost of the Variation in order that it may be investigated at that time."

5. If the Engineer requests a proposal prior to instructing a Variation, as described in item (c) of Sub-Clause 13.1, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:

- (a) a description of the proposed design and/or work to be performed and a programme for its execution;
- (b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 and to the Time for Completion; and
- (c) the Contractor's proposal for the Cost of the Variation."

6. As soon as practicable after receiving the Contractor's proposal under paragraph 5 of this Sub-Clause 13.3 above or under Sub-Clause 13.2, the Engineer shall respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.

7. Each instruction to execute a Variation, as described in items (a) and (b) of Sub-Clause 13.1, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.

8. Upon instructing or approving a Variation, the Engineer shall proceed in accordance with Sub-Clause 3.5 to agree or determine the Cost of the Variation, subject to the five conditions listed in items (a) through (e) below. Such Cost shall not include any profit and shall take account of the Contractor's submissions under Sub-Clause 13.2 if applicable.

- (a) Variations resulting from the Contractor's design errors, omissions or non-conformance with the performance specifications and parameters and the contract documents shall be implemented by the Contractor at no additional Cost to the Employer.

- (b) If the Contractor suffers delay and/or incurs Costs due to changes or errors in the Employer's performance specifications and parameters, the Contractor shall be entitled to either one of the following:
- (i) an extension of time for any such delays in accordance with Section 10 of Annex 'E' of the Implementing Rules and Regulations of Republic Act No. 9184; or
 - (ii) payment for such costs as specified in the contract documents, provided, that the cumulative amount of the Variation does not exceed 10% of the Accepted Contract Amount.
- (c) For work items that are exactly the same or similar to those in the Contract, the applicable unit prices of work items under the original Contract shall be used.
- (d) For new work items that are not in the Contract, the unit prices of the new work items shall be based on the direct unit costs used in the original Contract (e.g., unit cost of cement, rebars, form lumber, labor rate, equipment rental, etc.). All new components of the new work item shall be fixed prices, provided the same is acceptable to both the Employer and the Contractor, and provided further that the direct unit costs of new components shall be based on the Contractor's estimate as validated by the Employer via documented canvass in accordance with existing rules and regulations. The direct cost of the new work item shall then be combined with the mark-up factor (i.e., taxes and profit) used by the Contractor in the Bid to determine the unit price of the new work item.
- (e) The Contractor's request for payment for any Variation shall be accompanied by a statement, with the approved supporting forms, giving a detailed accounting and record of amount for which the Contractor claims payment. Said request for

	<p>payment shall be included with the Contractor's statement for progress payment.</p> <p>9. Within 28 days after occurrence of the circumstances or reasons justifying a claim for extra Cost, the Contractor shall deliver a notice to the Engineer giving full and detailed particulars of any extra Cost in order that it may be investigated at that time. The Contractor's failure to deliver the notices required under this paragraph and under item (vii) of the fourth paragraph of Sub-Clause 13.1 within the period required shall constitute a waiver by the Contractor for any claim for Costs that should have been the subject of such notices.</p>
<p>13.4 Payment in Applicable Currencies</p>	<p>Delete the text of Sub-Clause 13.4.</p> <p>Not Applicable</p>
<p>13.5 Provisional Sums</p>	<p>Amend the first sentence of the first paragraph of Sub-Clause 13.5 to read as follows:</p> <p>Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, to execute a variation, and the Contract Price shall not be adjusted as each such sum is considered included in the Contract Price. For each <u>Provisional Sum</u>, the Engineer may instruct:</p> <p>Amend item (a) of the first paragraph of Sub-Clause 13.5 to read as follows:</p> <p>(a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor pursuant to the Engineer's instruction or approval for a variation; and/or</p> <p>(b) Plant, Materials or services to be purchased by the Contractor, for which there shall be included in the Contract Price the actual amounts paid (or due to be paid) by the Contractor.</p>
<p>13.6 Daywork</p>	<p>Amend the first sentence of the fourth paragraph of Sub-Clause 13.6 to read as follows:</p> <p>For work of a minor or incidental nature, the Engineer may instruct that a <u>Variation</u> shall be executed on a <u>daywork</u> basis.</p>

The work shall then be valued in accordance with the daywork schedule included in the Contract, and the following procedure shall apply. If a daywork schedule is not included in the Contract, this Sub-Clause shall not apply.

Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

Except for any items for which the daywork schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

- (a) the names, occupations and time of Contractor's Personnel,
- (b) the identification, type and time of Contractor's Equipment and Temporary Works, and
- (c) the quantities and types of Plant and Materials used.

One copy of each statement will, if correct and recorded on forms approved by the Engineer, shall be verified and signed by the Engineer within two days of the work being done and returned to the Contractor.

**13.7 Adjustments
for Changes in
Legislation**

Amend the relevant phrase of the first paragraph of Sub-Clause 13.7 to read as follows:

The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, **made after the date of opening of bids for the Contract**, which affect the Contractor in the performance of obligations under the Contract.

If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the **made after the**

	<p>date of opening of bids for the Contract, the Contractor shall give notice to the Engineer and shall be entitled subject to <u>Sub-Clause 20.1 [Contractor's Claims]</u> to:</p> <p>(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], provided, that the Contractor shall not be entitled to an extension of time if the same was already taken into account in determining a prior extension; and</p> <p>(b) payment of any such <u>Cost</u>, on a no loss-no gain basis.</p>
<p>13.8 Adjustments for Changes in Cost</p>	<p><i>[REVISED]</i> Delete the text of Sub-Clause 13.8 and replace with the following:</p> <p>There shall be no adjustments in the Contract Price due to changes in cost, unless all the following conditions are present: (i) the Employer shall recommend an adjustment; (ii) the National Economic and Development Authority shall determine that the changes in cost result from the extraordinary circumstances described in the Civil Code of the Philippines, namely, extraordinary inflation or deflation of the Philippine currency; and (iii) the Government Procurement Policy Board shall approve the proposed adjustment, subject to appendix 15 of the 2016 Revised RA 9184 IRR.</p>
<p>Clause 14 Contract Price and Payment</p>	
<p>14.1 The Contract Price</p>	<p>No revision.</p>
<p>14.2 Advance Payment</p>	<p>Amend the first sentence of the first paragraph of Sub-Clause 14.2 by inserting the following at the start:</p> <p>Upon a written request of the Contractor, the Employer shall make an advance payment, as an interest-free loan for mobilization and design, when the Contractor submits a guarantee in accordance with this Sub-Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the <u>Appendix to Tender</u>.</p>

The Engineer shall issue an Interim Payment Certificate for the first instalment after receiving a Statement (under Sub-Clause 14.3 [Application for Interim Payment Certificates]) and after the Employer receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the advance payment. **The Advance Payment Guarantee shall be an irrevocable standby letter of credit issued by a bank acceptable to the Employer, and in a form acceptable to the Employer.” The Contractor may reduce the amount of the Advance Payment Guarantee by such amounts as were already repaid in accordance with this Sub-clause 14.2.”**

The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount may be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

The Advance Payment shall be repaid by the Contractor through percentage deductions in payment certificates. The percentage deductions shall be equal to the percentage of the Advance Payment amount to the Contract Price.

**14.3 Application
for Interim
Payment
Certificates**

[REVISED] Replace the text of Sub-Clause 14.3 with following text:

The Contractor shall submit a Statement in six copies to the Engineer after the end in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the relevant report on progress in accordance with Sub-Clause 4.21 [Progress Reports].

The Statement shall include the following the following items, as applicable, which shall be expressed in Philippine Pesos in which the Contract Price is payable, in the sequence listed:

(b) **The value of achieved milestones** and the relevant Contractor’s Documents produced up to the end of the

	<p>month (including Variations but excluding items described in sub-paragraphs (b) to (g) below;</p> <p>(c) the amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [Adjustments for Changes in Cost];</p> <p>(d) any amount to be deducted for retention, calculated by applying the percentage of retention stated in the Contract Data to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the Contract Data;</p> <p>(e) any amounts to be added and deducted for the advance payment and repayments in accordance with Sub-Clause 14.2 [Advance Payment];</p> <p>(f) not applicable;</p> <p>(g) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 20 [Claims, Disputes and Arbitration];</p> <p>(h) the deduction of amounts certified in all previous Payment Certificates; and</p> <p>the deduction of amounts to cover any third-party liabilities and uncorrected discovered defects in the Works.</p>
<p>14.4 Issue of Milestone Certificates</p>	<p>[REVISED] Replace sub-clause 14.4 to “Schedule of Milestone Payment” with following text:</p> <p>The contract includes a schedule of milestone payment specifying the estimated value of each milestone, which is comprised in the Contract Price and</p> <p>(a) the estimated value quoted in the Schedule of Milestone Payment shall be the estimated contract value for the purposes of sub-paragraph (a) of Sub-clause 14.3 [Application for Interim Payment Certificates];</p> <p>(b) Sub-clause 14.5 [Plant and Materials intended for the Works] shall apply; and</p> <p>(c) if these milestones are not defined by reference to the actual progress achieved in executing the works, and if actual progress is found to be less than that on which the</p>

	<p>schedule of milestones was based, then the Engineer may proceed in accordance with sub-clause 3.5 [determinations].</p>
<p>14.5 Plant and Materials intended for the Works</p>	<p>This Sub-Clause is Not Applicable.</p>
<p>14.6 Issue of Interim Payment Certificates</p>	<p><i>[REVISED]</i> Amend the first paragraph of Sub-Clause 14.6 to read as follows:</p> <p>The Engineer shall, within 28 days after receiving a statement and supporting documents, issue to the Employer an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with supporting particulars.</p> <p>The Engineer may in any <u>Payment Certificate</u> make any correction or modification that should properly be made to any previous <u>Payment Certificate</u>. A <u>Payment Certificate</u> shall not be deemed to indicate the Engineer’s acceptance, approval, consent or satisfaction.</p>
<p>14.7 Payment</p>	<p><i>[REVISED]</i> The Employer shall pay or cause to be paid to the Contractor:”</p> <p>(a) the first instalment of the advance payment, if any was paid, within 42 days after issuing the Letter of Acceptance or within 21 days after receiving the documents in accordance and Sub-Clause 14.2 [Advance Payment];</p> <p>(b) the amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents; and</p> <p>(c) the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate.</p> <p>Amend the second paragraph of Sub-Clause 14.7 by inserting the following as the second sentence:</p> <p>Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (for this currency) specified in the <u>Contract</u>. The Contractor may nominate only commercial or universal</p>

	banks authorized by the BANGKO SENTRAL NG PILIPINAS.
14.8 Delayed Payment	<i>[REVISED]</i> No payment of interest for delayed payments and adjustments shall be made by the Employer.
14.9 Payment of Retention Money	<p><i>[REVISED]</i> Replace the text of Sub-Clause 14.9 with the following text:</p> <p>For each Statement, the Contractor may request the substitution of the amount to be retained as Retention Money with an irrevocable standby letter of credit from a commercial bank, a bank guarantee, or a surety bond callable on demand, in amounts equivalent to the amount of Retention Money to be substituted, and in a form acceptable to the Employer; provided, that the execution of the Works is on schedule and the Works are satisfactorily undertaken.</p> <p>The irrevocable standby letters of credit, bank guarantees, or surety bonds shall be valid for a duration to be determined by the Employer and will answer for uncorrected discovered defects and third-party liabilities.”</p> <p>“Upon completion of the Works, the Contractor may substitute the amount retained as Retention Money with an ‘on demand’ bank guarantee in a form acceptable to the Employer.</p> <p>The 50% amount of the Retention Money shall be paid after issuance of the taking-over certificate and the balance shall be paid upon issuance of the Performance Certificate.</p>
14.10 Statement at Completion	No revision.
14.11 Application for Final Payment Certificate	No revision.
14.12 Discharge	No revision.
14.13 Issue of Final Payment Certificate	No revision.

14.14 Cessation of Employer's Liability	This Sub-Clause is not applicable.
14.15 Currencies of Payment	<i>[REVISED]</i> The Contract Price shall be paid in the currency or currencies named in the Appendix to Tender.
Clause 15 Termination by Employer	
15.1 Notice to Correct	<p><i>[REVISED]</i> The text of Sub-Clause 15.1 is to be replaced by the following from the 2016 Revised IRR of RA 9184:</p> <p>The Contractor shall undertake the repair works, at his own expense, of any damage to the infrastructure on account of the use of materials of inferior quality, within ninety (90) days from the time the HOPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the Procuring Entity shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.</p> <p>The defects liability period shall be covered by the Performance Security of the Contractor required in Section 39.1 of this IRR, which shall guarantee that the Contractor performs his responsibilities stated in the immediately preceding section. If the Contractor fails to comply with its obligations under Section 62.2.2.1 of this IRR, the Procuring Entity shall forfeit its Performance Security, subject its property (IES) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any competitive bidding. All payables of the GOP in his favor shall be offset to recover the costs.</p>
15.2 Termination by Employer	<p><i>[REVISED]</i> The first paragraph is revised as follows:</p> <p>The Employer shall be entitled to terminate the Contract for any of the following reasons:</p> <p>(a) While the execution of the works is on-going, the Contractor, due to its fault, has incurred negative slippage of fifteen percent (15%) or more in accordance with presidential decree NO. 1870, in the execution of the works, regardless of whether or not previous warnings and notices</p>

have been issued for the Contractor to improve his performance;

(b) After the period for completion of the works has expired, the Contractor, due to its fault, has incurred negative slippage of ten percent (10%) or more in the completion of the works; or the Contractor has delayed the completion of the works by the number of days for which the maximum amount of delay damages can be paid;

(c) The Contractor:

(i) Abandons the works, refuses or fails to comply with a valid instruction of the Employer or Engineer, or fails to proceed expeditiously and without delay despite a written notice by the Employer or Engineer; or stops work for 28 days when no stoppage of work is shown on the current program of work and the stoppage has not been authorized by the Engineer; or the Engineer gives notice to the Contractor that failure to correct a particular defect is a fundamental breach of the Contract and the Contractor fails to correct such defect within a reasonable period of time as determined by the Engineer;

(ii) Does not actually have on the project site the minimum essential equipment listed on the bid as necessary to prosecute the works in accordance with the approved program of work and equipment deployment schedule as required for the project;

(iii) Does not execute the works in accordance with the Contract or persistently or flagrantly neglects to carry out its obligations under the Contract;

(iv) Neglects or refuses to remove materials or to perform a new work that has been rejected as defective or unsuitable;
or

(v) Subcontracts any part of the Contract without approval by the Employer;

Provided, that all materials on the site, plant, works, and Contractor's equipment purchased and funded under the Contract, shall be deemed to be the property of the

Employer if the Contract is terminated because of the Contractor's default under items (a) through (c).

(d) The Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction, in which case termination will be without compensation to the Contractor; provided, that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Employer or the Contractor."

(e) The Employer determines prima facie that the Contractor has engaged, before or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation. Unlawful acts include, but are not limited to, the following:

(i) Corrupt, fraudulent, collusive and coercive practices;

(ii) Drawing up or using forged documents;

(iii) Using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and

(iv) Any other act analogous to the foregoing.

Amend the second paragraph of Sub-Clause 15.2 to read as follows:

In any of these events or circumstances, the parties shall observe the procedures for termination of the Contract as described in Sub-Clause 15.6.

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of

	<p>life or property or for the safety of the <u>Works</u>.</p> <p>After termination, the Employer may complete the <u>Works</u> and/or arrange for any other entities to do so. The Employer and these entities may then use any <u>Goods</u>, Contractor's Documents and other design documents made by or on behalf of the Contractor.</p>
<p>15.3 Valuation at Date of Termination</p>	<p>[REVISED] Insert the following as the second paragraph of sub-clause 15.3:</p> <p>As soon as practicable after a notice of termination under <u>sub-clause 15.2</u> [<i>termination by employer</i>] has taken effect, the engineer shall proceed in accordance with <u>sub-clause 3.5</u> [<i>determinations</i>] to agree or determine the value of the <u>works</u>, <u>goods</u> and <u>contractor's documents</u>, and any other sums due to the contractor for work executed in accordance with the contract.</p> <p>If the Contract is terminated under Sub-clause 15.2 because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the works done and the materials ordered, less (i) any amount of advance payments received up to the date of the issue of the certificate, and (ii) the percentage indicated in the contract data to be applied to the value of the works not completed. No additional delay damages shall be applied. If the total amount due to the Employer exceeds any payment due to the Contractor, then the difference shall be a debt payable to the Employer entity."</p> <p>If the Contract is terminated for the Employer's convenience under Sub-clause 15.5, the Engineer shall issue a certificate for (i) the value of the works done and the materials ordered, (ii) the reasonable cost of removal of equipment and repatriation of the Contractor's personnel employed solely for the works, and (iii) the Contractor's cost in protecting and securing the works, less any amount of advance payments received up to the date of the certificate."</p>
<p>15.4 Payment</p>	<p>Insert the following as the second paragraph of Sub-Clause</p>

<p>after Termination</p>	<p>15.4:</p> <p>After a notice of termination under <u>Sub-Clause 15.2</u> [<i>Termination by Employer</i>] has taken effect, the Employer may:</p> <p>(a) proceed in accordance with Sub-Clause 2.5 [Employer's Claims],</p> <p>(b) withhold further payments to the Contractor until the costs of design, execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established, and/or</p> <p>(c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [Valuation at Date of Termination]. After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.</p> <p>The relevant party shall pay or repay the net balance due within 28 days from receipt of the notice or decision of termination.</p>
<p>15.5 Employer's Entitlement to Termination</p>	<p><u>The text of Sub-Clause 15.5 is replaced by the following text:</u></p> <p>The Employer may terminate this Contract, in whole or in part, at any time for its convenience if it has determined the existence of conditions that make the implementation of the project economically, financially or technically impractical or unnecessary, such as, but not limited to, fortuitous events or changes in the law of the country or the policies of the country's national government.</p> <p>After this termination, the Contractor shall proceed in accordance with <u>Sub-Clause 16.3</u> [<i>Cessation of Work and Removal of Contractor's Equipment</i>] and shall be paid in accordance with <u>Sub-Clause 19.6</u> [<i>Optional Termination, Payment and Release</i>].</p>
<p>15.6 Procedures for Termination</p>	<p>A new Sub-clause 15.6 is added with the following text:</p> <p>The Parties shall observe the following procedures in case of termination of the Contract under clause 15:</p>

1. Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the Employer shall, within a period of 7 days, verify the existence of such ground(s) and cause the execution of a verified report, with all relevant evidence attached.

2. The Employer shall send to the Contractor a notice to terminate stating the following:

(a) That the contract is being terminated for any of the ground(s) afore-mentioned, and a statement of the acts that constitute the ground(s) constituting the same;

(b) The extent of termination, whether in whole or in part;

(c) An instruction to the Contractor to show cause as to why the contract should not be terminated; and

(d) Special instructions of the Employer, if any.

The notice to terminate shall be accompanied by a copy of the verified report;

3. The Contractor shall have 7 days from receipt of the notice to submit to the Employer a verified position paper stating why the Contract should not be terminated. If the Contractor fails, either by inaction or default, to submit the position paper within the required period or to show cause why the Contract should not be terminated, then the Employer may issue its decision to terminate the Contract.

4. At any time before receipt of the Contractor's position paper, the Employer may withdraw the notice to terminate if the Employer determines that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor's receipt of the notice to terminate;

5. The Employer shall decide whether or not to terminate the Contract within a non-extendible period of 10 days from receipt of the Contractor's position paper. The Employer shall serve a notice to the Contractor of its decision and, unless otherwise provided in the said notice of decision, the Contract is deemed terminated from receipt of

the Contractor of the notice of decision. The termination shall only be based on the grounds stated in the notice to terminate.

6. The Employer may, at its option, create a contract termination review committee (CTRC) to assist in deciding whether or not to terminate the Contract. All decisions recommended by the CTRC shall be subject to the approval of the Employer.

7. Upon termination of the Contract due to the default of the Contractor, the Employer shall impose upon the Contractor the administrative penalty of (i) suspension from participating in the competitive bidding process, for a duration of 1 year for the first offense, and 2 years for the second offense; and (ii) disqualification from participating in the competitive bidding being undertaken by the Employer. In addition to the penalty of suspension, the performance security of the Contractor shall also be forfeited.

Clause 16 Suspension and Termination by Contractor

16.1 Contractor's Entitlement to Suspend Work

The first paragraph of Sub-Clause 16.1 is replaced with the following text:

The Contractor shall, after 15 days from receipt of its notice to the Engineer, have the right to suspend work operation on any or all activities along the critical path of activities due to any of the following:

(a) There are right-of-way problems that prohibit the Contractor from performing work in accordance with the approved construction schedule;

(b) The Employer has not furnished to the Contractor construction plans that are to be furnished by the Employer under the Contract, thus precluding any work called for by such plans;

(c) Peace and order conditions make it extremely dangerous, if not impossible, to work; provided, that this condition must be (i) certified in writing by the Philippine National Police (PNP) station which has responsibility over

the affected area and (ii) confirmed by the Department of Interior and Local Government (DILG) regional director.

(d) the Employer has not delivered the materials and equipment that are to be furnished by the Employer under the Contract; or

(e) the Employer's delay in the payment of an Interim Payment Certificate beyond 84 days from the issuance of such certificate by the Engineer, unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.”

The Contractor's action shall not prejudice his entitlements to termination under Sub-Clause 16.2 [*Termination by Contractor*].

If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and

(b) payment of any such Cost.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

16.2 Termination by Contractor

[REVISED] The text of sub-clause 16.2 is replaced by the following text:

“The Contractor may terminate the Contract if the work are completely stopped for a continuous period of at least 60 days through no fault of the Contractor, due to any of

	<p>the following reasons:</p> <p>“(a) Failure of the Employer to deliver, within a reasonable time, supplies, materials, right-of-way, or other items that the Employer is obligated to furnish under the terms of the Contract; or</p> <p>“(b) The prosecution of the Works is disrupted by the adverse peace and order situation, as certified by the armed forces of the Philippines provincial commander and approved by the Secretary of National Defense.”</p> <p>The Contractor must serve a written notice to the employer of its intention to terminate the Contract at least 30 days before its intended termination. The Contract is deemed terminated if it is not resumed in 30 days after the receipt of such notice by the Employer.</p>
<p>16.3 Cessation of Work and Removal of Contractor's Equipment</p>	<p>Amend item (c) of Sub-Clause 16.3 to read:</p> <p>After a notice of termination under <u>Sub-Clause 15.5 [Employer's Entitlement to Termination]</u>, <u>Sub-Clause 16.2 [Termination by Contractor]</u> or <u>Sub-Clause 19.6 [Optional Termination, Payment and Release]</u> has taken effect, the Contractor shall promptly:</p> <p>(a) cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works,</p> <p>(b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and</p> <p>(c) remove wreckage, rubbish, and all other Goods from the Site, except as necessary for safety, and leave the Site without delay.</p>
<p>16.4 Payment on Termination</p>	<p>Amend Sub-Clause 16.4 by inserting the following as the first paragraph:</p> <p>If the Contract is terminated because of a fundamental breach of the Contract by the Employer, the Engineer shall issue a certificate for (i) the value of the works done and the materials ordered, (ii) the reasonable cost of removal of</p>

	<p>equipment and repatriation of the Contractor’s personnel Employed solely for the works, and (iii) the Contractor’s cost in protecting and securing the works, less any amount of Advance Payments received up to the date of the certificate.</p> <p>After a notice of termination under <u>Sub-Clause 16.2 [Termination by Contractor]</u> has taken effect, the Employer shall promptly:</p> <ul style="list-style-type: none"> (a) return the Performance Security to the Contractor, (b) pay the Contractor in accordance with Sub-Clause 19.6 [Optional Termination, Payment and Release], and (c) pay to the Contractor the amount certified by the Engineer under the immediately preceding paragraph
<p>Clause 17 Risk and Responsibility</p>	
<p>17.1 Indemnities</p>	<p>[REVISED] The Contractor shall indemnify and hold harmless the Employer, the <u>Employer's Personnel</u>, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:</p> <ul style="list-style-type: none"> (a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the design, execution and completion of the Works and the remedying of any defects, and (b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss: <ul style="list-style-type: none"> (i) arises out of or in the course of or by reason of the design, execution and completion of the <u>Works</u> and the remedying of any defects, and (ii) is attributable to any negligence, wilful act or breach of the <u>Contract</u> by the Contractor, the <u>Contractor's Personnel</u>, their respective agents, or anyone directly or indirectly employed by any of them.
<p>17.2 Contractor’s Care of the Works</p>	<p>[REVISED] Amend the first portion of the first sentence of the first paragraph of sub-clause 17.2 to read:</p> <p>The Contractor shall assume full responsibility for the care of the works and goods, including responsibility for (i) any damage or destruction of the works except those occasioned by Force Majeure; and (ii) the safety, protection, security,</p>

	<p>and convenience of his personnel, third parties, and the public at large, as well as the works, equipment, installation and the like to be affected by his construction work, from the commencement date until the Taking-over Certificate.”</p>
<p>17.3 Employer’s Risks</p>	<p>[REVISED] The text of Sub-clause 17.3 is replaced by the following text:</p> <p>The risks referred to in Sub-clause 17.4 below are:</p> <p>(a) The risk of personal injury, death, or loss of or damage to property (excluding the works, plant, materials, and equipment), which are due to:</p> <p>(i) Any type of use or occupation of the relevant portion of the site authorized by the Employer after the issuance of the taking-over certificate; or</p> <p>(ii) Negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or Contracted to the Employer except the Contractor.</p> <p>(b) The risk of damage to the works, plant, materials, and equipment to the extent that it is due to a fault of the Employer, or due to war or radioactive contamination directly affecting the country.</p>
<p>17.4 Consequences of Employer’s Risks</p>	<p>[REVISED] If and to the extent that any of the risks listed in <u>Sub-Clause 17.3</u> above results in loss or damage to the <u>Works</u>, <u>Goods</u> or <u>Contractor’s Documents</u>, the Contractor shall promptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.</p> <p>If the Contractor suffers delay and/or incurs <u>Cost</u> from rectifying this loss or damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to <u>Sub-Clause 20.1</u> [<i>Contractor’s Claims</i>] to:</p> <p>(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and</p> <p>(b) payment of any such Cost.</p>

	<p>After receiving this further notice, the Engineer shall proceed in accordance with <u>Sub-Clause 3.5 [Determinations]</u> to agree or determine these matters.</p>
<p>17.5 Intellectual and Industrial Property Rights</p>	<p>In this Sub-Clause, "infringement" means an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the <u>Works</u>; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.</p> <p>Whenever a <u>Party</u> does not give notice to the other <u>Party</u> of any claim within <u>28 days</u> of receiving the claim, the first <u>Party</u> shall be deemed to have waived any right to indemnity under this Sub-Clause.</p> <p>The Contractor shall indemnify and hold the Employer harmless against and from any other claim which arises out of or in relation to:</p> <p>(i) the Contractor's design, manufacture, construction or execution of the <u>Works</u>, (ii) the use of <u>Contractor's Equipment</u>, or (iii) the proper use of the <u>Works</u>.</p> <p>If the Employer is entitled to be indemnified under this Sub-Clause, the Contractor may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The Employer shall, at the request and cost of the Contractor, assist in contesting the claim. The Employer (and its Personnel) shall not make any admission which may be prejudicial to the Contractor, unless the Contractor failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by the Employer."</p>
<p>17.6 Limitation of Liability</p>	<p>[REVISED] Amend the third paragraph of Sub-Clause 17.6 to read:</p> <p>Neither <u>Party</u> shall be liable to the other <u>Party</u> for loss of use of any <u>Works</u>, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other <u>Party</u> in connection with the <u>Contract</u>, other than under <u>Sub-Clause 16.4 [Payment on Termination]</u> and</p>

	<p><u>Sub-Clause 17.1 [Indemnities].</u></p> <p>The total liability of the Contractor to the Employer, under or in connection with the <u>Contract</u> other than under <u>Sub-Clause 4.19 [Electricity, Water and Gas]</u>, <u>Sub-Clause 4.20 [Employers Equipment and Free-Issue Material]</u>, <u>Sub-Clause 17.1 [Indemnities]</u> and <u>Sub-Clause 17.5 [Intellectual and Industrial Property Rights]</u>, shall not exceed the sum stated in the Particular Conditions or (if a sum is not so stated) the <u>Accepted Contract Amount</u>.</p> <p>This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the Contractor. Subject to additional provisions, if any, set forth in the Particular Conditions, the Contractor’s liability under this Contract shall be as provided by the laws of the country.”</p>
<p>17.7 Use of Employer’s Accommodation/Facilities</p>	<p>The new Sub-clause added with the following text:</p> <p>“The Contractor shall take full responsibility for the care of the Employer provided accommodation and facilities, if any, as detailed in the Employer’s Requirements, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).</p> <p>“If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Employer is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.”</p>
<p>Clause 18 Insurance</p>	
<p>18.1 General Requirements for Insurances</p>	<p>[REVISED] The text of Sub-Clause 18.1 is replaced by the following text:</p> <p>(1) The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this contract, the following insurance coverage:</p> <p>(a) Contractor’s all risk insurance;</p>

(b) Transportation to the project site of equipment, machinery, and supplies owned by the Contractor;

(c) Personal injury or death of the Contractor's employees; and

(d) Comprehensive insurance for third party liability to the Contractor's direct or indirect act or omission causing damage to third persons. The limit of insurances refer to Contract Data.

(2) The Contractor shall (i) provide evidence to the Engineer that the insurances required under this contract have been effected and (ii) within a reasonable time, provide copies of the insurance policies to the Engineer. The Engineer shall be responsible for providing such evidence and such copies of policies to the Employer.

(3) The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall produce to the Engineer the insurance policies in force including the receipts for payment of the current premiums.

The above insurance policies shall be obtained from any reputable insurance company approved by the Engineer.

(4) If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the Employer may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the Employer may deduct the amount it shall pay for said premiums from any monies due, or which may become due, to the Contractor, without prejudice to the Employer exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this contract.

(5) In the event the Contractor fails to observe the above safeguards, the Employer may, at the Contractor's expense, take whatever measure is deemed necessary for its

	<p>protection and that of the Contractor’s personnel and third parties, and/or order the interruption of dangerous works. In addition, the Employer may refuse to make the payments under sub-clause 14.7 until the Contractor complies with this Sub-clause 18.1.</p> <p>(6) The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the Employer’s demand, with a new policy issued by a new insurance company acceptable to the Employer for any of the following grounds:</p> <p>(a) The issuer of the insurance policy to be replaced has:</p> <p>(i) Become bankrupt;</p> <p>(ii) Been placed under receivership or under a management committee;</p> <p>(iii) Been sued for suspension of payment; or</p> <p>(iv) Been suspended by the insurance commission and its license to engage in business or its authority to issue insurance policies cancelled; or</p> <p>(b) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.</p>
<p>18.2 Insurance for Works and Contractor's Equipment</p>	<p>Delete the text of Sub-Clause 18.2.</p> <p>Not Applicable.</p>
<p>18.3 Insurance against Injury to Persons and Damage to Property</p>	<p>Delete the text of Sub-Clause 18.3.</p> <p>Not Applicable.</p>
<p>18.4 Insurance for Contractor's Personnel</p>	<p>Delete the text of Sub-Clause 18.4</p> <p>Not Applicable.</p>

Clause 19 Force Majeure

19.1 Definition of Force Majeure *[REVISED]* Amend the first paragraph of Sub-Clause 19.1 to read:

In this Clause, 'Force Majeure' means an exceptional event **which the Contractor could not have foreseen, or which though foreseen, was inevitable. For the avoidance of doubt, Force Majeure shall not include (i) ordinary unfavorable weather conditions and (ii) any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.**

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions **under the laws of the country** are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, terrorism, revolution, insurrection, military or usurped power, or civil
- (iv) munitions of war, explosive Materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- (v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

19.2 Notice of Force Majeure Amend Sub-Clause 19.2 by inserting the following text as the fourth and fifth paragraphs:

If a Party is or will be prevented from performing any of its obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

The Party shall, having given notice, be excused performance of such obligations for so long as such Force Majeure prevents

	<p>it from performing them.</p> <p>Notwithstanding any other provision of this Clause, <u>Force Majeure</u> shall not apply to obligations of either <u>Party</u> to make payments to the other <u>Party</u> under the <u>Contract</u>.</p> <p>“For the avoidance of doubt, the Employer shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to Force Majeure. The Contractor shall immediately comply with such order to suspend the work wholly or partly</p> <p>“For the avoidance of doubt, under Sub-clause 16.1, the Contractor shall have the right to suspend work operation when peace and order conditions make it extremely dangerous, if not impossible, to work.”</p>
<p>19.3 Duty to Minimize Delay</p>	<p>Amend the first paragraph of Sub-Clause 19.3 to read:</p> <p>“Each Party shall at all times exercise due diligence to prevent or minimize any damage it may suffer or any delay in the performance of the Contract as a result of Force Majeure.</p> <p>A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.</p>
<p>19.4 Consequences of Force Majeure</p>	<p>Amend the relevant portion of the first paragraph of Sub-Clause 19.4 to read:</p> <p>If the Contractor is prevented from performing any of his obligations under the <u>Contract</u> by Force Majeure of which notice has been given under <u>Sub-Clause 19.2 [Notice of Force Majeure]</u>, and suffers delay <u>by</u> reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 to an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4. [Extension of Time for Completion].</p>
<p>19.5 Force Majeure Affecting Subcontractor</p>	<p>No revision.</p>
<p>19.6 Optional</p>	<p>Amend the second sentence of the first paragraph of</p>

<p>Termination, Payment and Release</p>	<p>Sub-Clause 19.6 by replacing “7 days” with “28 days”.</p> <p>If the execution of substantially all the <u>Works</u> in progress is prevented for a continuous period of 84 <u>days</u> by reason of <u>Force Majeure</u> of which notice has been given under <u>Sub-Clause 19.2</u> [<i>Notice of Force Majeure</i>], or for multiple periods which total more than 140 <u>days</u> due to the same notified <u>Force Majeure</u>, then either <u>Party</u> may give to the other <u>Party</u> a notice of termination of the <u>Contract</u>. In this event, the termination shall take effect 28 days after the notice is given, and the Contractor shall proceed in accordance with <u>Sub-Clause 16.3</u> [<i>Cessation of Work and Removal of Contractor's Equipment</i>].</p> <p>Upon such termination, the Engineer shall determine the value of the work done and issue a <u>Payment Certificate</u> which shall include:</p> <ul style="list-style-type: none"> (a) the amounts payable for any work carried out for which a price is stated in the Contract; (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer’s disposal; (c) The cost of demobilization.
<p>19.7 Release from Performance under the Law</p>	<p>No revision.</p>
<p>Clause 20 Claims, Disputes and Arbitration</p>	
<p>20.0 General Procedure for Claims and Disputes</p>	<p>Insert this new Sub-Clause which reads:</p> <p>Pursuant to Section 59 of Republic Act No. 9184, authorizing the Parties to agree to alternative modes of dispute resolution, the general procedure for claims and disputes is as follows:</p> <ul style="list-style-type: none"> (a) The Contractor shall submit his claim under Sub-Clause

20.1;

(b) The Engineer shall make a determination of the claim under Sub-Clause 20.1 and Sub-Clause 3.5;

(c) If a dispute arises between the Parties in connection with the Contract, including any determination of the Engineer, the Parties agree to use the alternative mode of dispute resolution through the DAB, wherein either Party may refer the dispute to the DAB under Sub-Clause 20.4;

(d) The DAB shall give its decision within 84 days under Sub-Clause 20.4;

(e) Either Party may give its notice of dissatisfaction under Sub-Clause 20.4 within 28 days of receipt of the decision of the DAB or 28 days of expiration of the period for the DAB to issue its decision;

(f) Where a notice of dissatisfaction has been given, the Parties shall make every effort to amicably resolve their dispute by mutual consultation under Sub-Clause 20.5; and

(g) Either Party may commence arbitration under Sub-Clause 20.5 within 56 days after the notice of dissatisfaction was given unless the Parties agree otherwise.

20.1 Contractor's Claims

[REVISED] Amend the provided period from 28 to 30 days:

If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than **30days** after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of **30days**, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following

provisions of this Sub-Clause shall apply.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employer's liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- (a) this fully detailed claim shall be considered as interim;
- (b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.

Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on

the principles of the claim within such time.

Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

The Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

20.2 Appointment of the Dispute Adjudication Board

Amend the first, second, and third paragraphs of Sub-Clause 20.2 to read:

Disputes shall be adjudicated by a DAB in accordance with Sub-Clause 20.4 [Obtaining Dispute Adjudication Board's Decision]. **Disputes shall be adjudicated by a DAB in accordance with Sub-clause 20.4. The Parties shall agree on who shall the members of the DAB within 28 days after the Commencement Date.**

The DAB shall comprise, as stated in the **Contract Data**, either one or three suitably qualified persons ('the members'). If the number is not so stated and the Parties do not agree otherwise, the DAB shall comprise three persons.

The parties shall select the DAB sole member or the DAB chairman and two members from the list of persons stated in the Contract Data within 28 days after the

Commencement Date.

The terms of the remuneration of either the sole member or each of the three members shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

If at any time the Parties so agree, they may appoint a suitably qualified person or persons to replace any one or more members of the DAB. Unless the Parties agree otherwise, the appointment will come into effect if a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment. The replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this Sub-Clause.

The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the DAB (including each member) shall expire when the DAB has given its decision on the dispute referred to it under Sub-Clause 20.4 [*Obtaining Dispute Adjudication Board's Decision*], unless other disputes have been referred to the DAB by that time under Sub-Clause 20.4, in which event the relevant date shall be when the DAB has also given decisions on those disputes.

20.3 Failure to Agree Dispute Adjudication Board

If any of the following conditions apply, namely:

(a) the Parties fail to agree upon the appointment of the sole member of the DAB by the date stated in the first paragraph of Sub-Clause 20.2 [Appointment of the Dispute Adjudication Board],

(b) either Party fails to nominate a member (for approval by the other Party) of a DAB of three persons by such date,

(c) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the DAB by such date, or

(d) the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, then the appointing entity or

	<p>official named in the <u>Appendix to Tender</u> shall, upon the request of either or both of the <u>Parties</u> and after due consultation with both <u>Parties</u>, appoint this member of the <u>DAB</u>. This appointment shall be final and conclusive.</p>
<p>20.4 Obtaining Dispute Adjudication Board’s Decision</p>	<p>Amend Sub-Clause 20.4 by inserting the following at the beginning:</p> <p>“Pursuant to Section 59 of Republic Act NO. 9184, authorizing the Parties to agree to alternative modes of dispute resolution, any dispute described in the immediately succeeding sentence shall be referred to the DAB under this Sub-clause 20.4 before any party may initiate arbitration proceedings with regard to such dispute.”</p> <p>If a dispute (of any kind whatsoever) arises between the <u>Parties</u> in connection with, or arising out of, the <u>Contract</u> or the execution of the <u>Works</u>, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, then after a <u>DAB</u> has been appointed pursuant to <u>Sub-Clause 20.2</u> [<i>Appointment of the Dispute Adjudication Board</i>] and <u>20.3</u> [<i>Failure to Agree Dispute Adjudication Board</i>], either <u>Party</u> may refer the dispute in writing to the <u>DAB</u> for its decision, with a copy to the other <u>Party</u>. Such reference shall state that it is given under this Sub-Clause.</p> <p>For a <u>DAB</u> of three persons, the <u>DAB</u> shall be deemed to have received such reference on the date when it is received by the chairman of the <u>DAB</u>.</p> <p>Both <u>Parties</u> shall promptly make available to the <u>DAB</u> all information, access to the <u>Site</u>, and appropriate facilities, as the <u>DAB</u> may require for the purposes of making a decision on such dispute. The <u>DAB</u> shall be deemed to be not acting as arbitrator(s).</p> <p>Within 84 <u>days</u> after receiving such reference or the advance payment referred to in <u>Clause 6</u> of Appendix – General Conditions of Dispute Adjudication Agreement, whichever date is later, or within such other period as may be proposed by the <u>DAB</u> and approved by both <u>Parties</u>, the <u>DAB</u> shall give its decision, which shall be reasoned and shall state that it is given</p>

under this Sub-Clause. However, if neither of the Parties has paid in full the invoices submitted by each Member pursuant to Clause 6 of the Appendix – General Conditions of Dispute Adjudication Agreement, the DAB shall not be obliged to give its decision until such invoices have been paid in full. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.

If either Party is dissatisfied with the DAB's decision, then either Party may, within 28 days after receiving the decision, give notice to the other Party of its dissatisfaction. If the DAB fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference or such payment, then either Party may, within 28 days after this period has expired, give notice to the other Party of its dissatisfaction.

In either event, this notice of dissatisfaction shall state that it is given under this Sub-Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in Sub-Clause 20.7 [*Failure to Comply with Dispute Adjudication Board's Decision*] and Sub-Clause 20.8 [*Expiry of Dispute Adjudication Board's Appointment*], neither Party shall be entitled to commence arbitration of a dispute unless a notice of dissatisfaction has been given in accordance with this Sub-Clause.

If the DAB has given its decision as to a matter in dispute to both Parties, and no notice of dissatisfaction has been given by either Party within 28 days after it received the DAB's decision, then the decision shall become final and binding upon both Parties.

20.5 Amicable Settlement

[REVISED] Replace the text of sub-clause 20.5 with the following:

If any dispute or difference of any kind whatsoever shall arise between the parties in connection with the implementation of the contract and such dispute or difference has been the subject of a Notice of Dissatisfaction

	<p>under Sub-clause 20.4, the Parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.</p> <p>Where a party has given its notice of dissatisfaction under Sub-clause 20.4, such party may commence arbitration 14 days after giving such notice, unless the Parties agree otherwise.</p>
<p>20.6 Arbitration</p>	<p><i>[REVISED]</i> Replace the text of Sub-Clause 20.6 with the following:</p> <p>“Unless settled amicably, any dispute between the parties that is the subject of a Notice of Dissatisfaction shall be finally settled by arbitration in the country according to the arbitration rules of the construction industry arbitration commission of the Philippines.”</p> <p>“The arbitral award and any decision rendered in accordance with this sub-clause 20.6 shall be appealable by way of a petition for review to the court of appeals. The petition shall raise pure questions of law and shall be governed by the rules of court.”</p>
<p>20.7 Failure to Comply with Dispute Adjudication Board’s Decision</p>	<p>No revision.</p>
<p>20.8 Expiry of Dispute Adjudication Board’s Appointment</p>	<p>No revision.</p>

Section VI. Employer's Requirements

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Abbreviation	Term
ACP	Advanced Checking Prints
ACS	Access Control Systems
ALARP	As Low As Reasonably Practicable
AIP	Approval in Principle
BCDA	Bases Conversion and Development Authority
C&D	Construction and Demolition
CBD	Central Business District
CCTV	Closed-Circuit Television
DAP	Development Academy of the Philippines
DAS	Drawing Amendment Sheets
DENR	Department of Environment and Natural Resources
DLP	Defects Liability Period
DOF	Department of Finance
DOT	Department of Tourism
DOTC	Department of Transportation and Communications
DOTr	Department of Transportation
DPWH	Department of Public Works and Highways
DSA	Deterministic Safety Assessment
DSR	Design Safety Review
DTI	Department of Trade and Industry
ECA	Environmentally Critical Area
ECC	Environmental Compliance Certificate
ECP	Environmentally Critical Project
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELS	Excavation and Lateral Support
EMB	Environmental Management Bureau
ER	Environmental Review
FCR	Field Change Requests

Abbreviation	Term
FMECA	Failure Mode Effect Criticality Analysis
FRACAS	Failure Recording and Corrective Action System
FTR	Fault Tree Analysis
GPS	Global Positioning System
HABD	Hot Axle Bearing Detector
ICE	Independent Design Checker
LED	Light-Emitting Diode
LGU	Local Government Unit
LNG	Liquefied Natural Gas
LWR	Long Welded Rail
MRO	Maintenance, Repair, and Overhaul
MSE	Mechanically Stabilized Earth
NBCP	National Building Code of the Philippines
NCR	National Capital Region
NCT	New Container Terminal
NFPA	National Fire Protection Association
NSCP	National Structural Code of the Philippines
NSCR	North-South Commuter Railway
NSDW	National Standards for Drinking Water
NSR	Noise Sensitive Receiver
OCS	Overhead Contact Line System
NTHA	Natural Terrain Hazard Assessment
O&M	Operation and Maintenance
PIR	Passive Infra Red
PNR	Philippine National Railways
PP	Presidential Proclamation
PPA	Philippine Ports Authority
PPFZ	Poro Point Freeport Zone
PPP	Public-Private Partnership

Abbreviation	Term
PSA	Philippine Statistics Authority
PSHS	Philippine Science High School
QA/QC	Quality Assurance/Quality Control
RAMS	Reliability, Availability, Maintainability and Safety
RFID	Radio-frequency Identification
ROW	Right-of-Way
SA	System Assurance
SADP	System Assurance Demonstration Plan
SADR	System Assurance Demonstration Report
SARMP	System Assurance and Risk Management Plan
SCADA	Supervisory, Control and Data Acquisition
SCI	Safety Critical Item
SLH	South Long Haul
SLHP	South Long Haul Project
SIL	Safety Integrity Level
SLS	Serviceability Limit State
STS	Ship-to-Ship
TETRA	Terrestrial Trunked Radio
UHF	Ultra High Frequency
UIC	Union Internationale des Chemins de fer (International Union of Railways) UN
ULS	Ultimate Limit State
UN	United Nations
US	United States
WILD	Wheel Impact Load Detection
WMS	Wheel Measurement System

Part One General Requirements

1. The Project

1.1. Project Overview

1.1.1. There will be five (5) packages for the South Long Haul Project (SLHP) respectively: Package 1 is from Calamba (Banlic Station) to Legazpi (Daraga Station) with San Pablo Depot including electromechanical; Package 2 is from Legazpi (Daraga) to Matnog including electromechanical; Package 3 is Batangas branch line including electromechanical; Package 4 is Metro Manila with Sucat and Bucal Terminal including electromechanical and Package 5 is rolling stock. Package 1 is approximately 380km with 22 stations, linking Calamba city with Bicol International Airport. Since the interconnecting station with the NSCR South Commuter will be located in Banlic, transfer conditions need to be considered synchronously. To avoid a conflict between Bucal and the Planned station construction of the NSCR South Commuter, synchronous construction should be considered. Furthermore, considering the branch lines Sipocot to Daet and Daraga to Legazpi as separated projects, relevant station in Package 1 shall reserve the introduction engineering conditions.

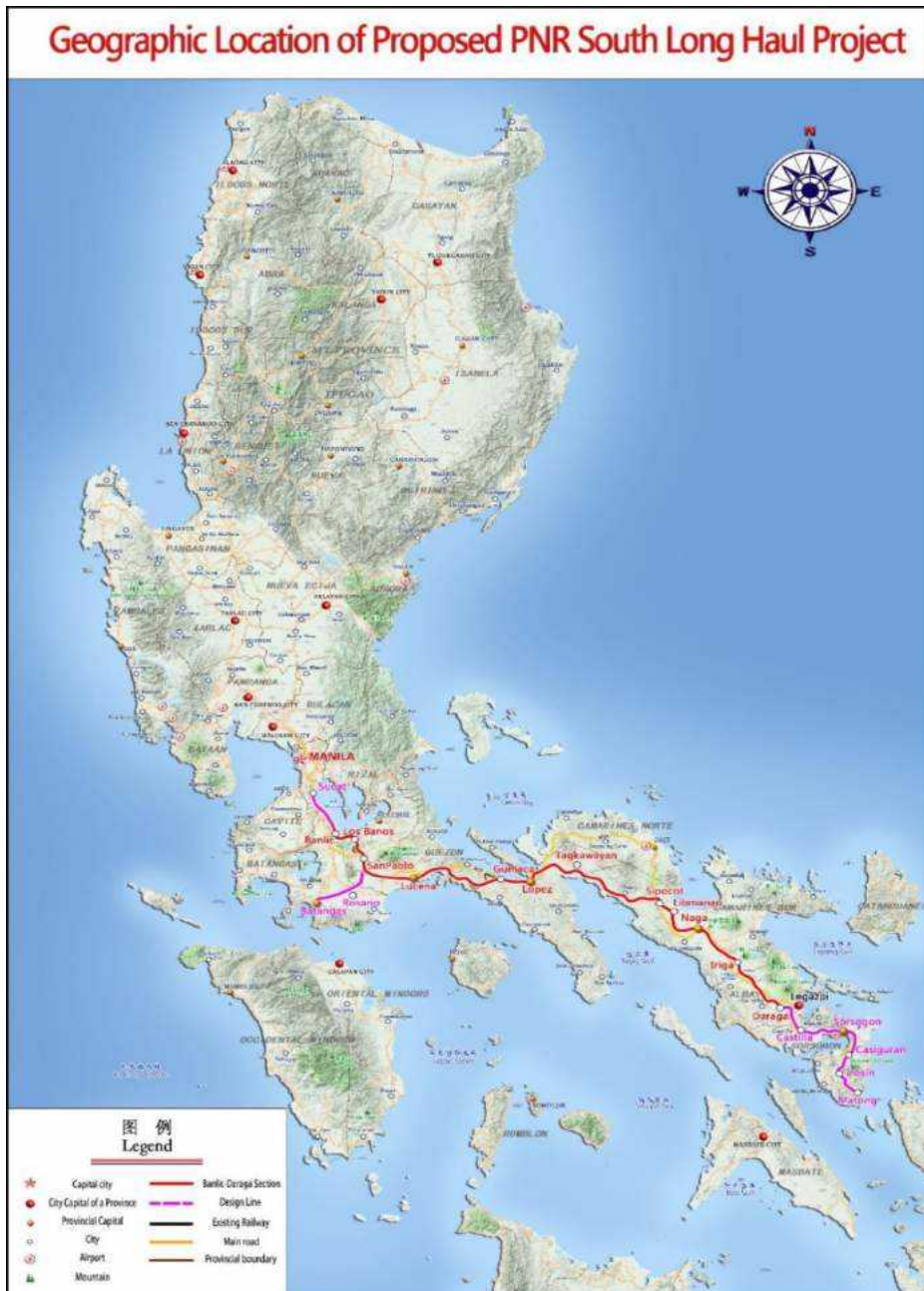


Figure 1. Proposed South Long Haul Project

- 1.1.2. The package 1 of SLHP is positioned as the initial step in developing the rail system throughout the south of Luzon. Next, the alignment will further extend to the Matnog port and Batangas port.
- 1.1.3. The whole alignment of package is approximately 380 kilometres long and is located in the south section of Luzon. More than 50% of alignment makes use of the existing PNR ROW.
- 1.1.4. The Contractor shall deliver to the Employer a fully functional and integrated, safe, secure, efficient and reliable single-track mixed passenger and freight railway.

1.1.5. The specified Operation and Maintenance (O&M) facilities will be fully commissioned and functional to support the rolling stock fleet, systems and O&M infrastructure.

1.1.6. The operational requirements of SLHP include, amongst other requirements, the following:

- a) Operation with diesel power, but with structure gauge and other provisions to enable future installation and electrification, such as ensuring that reinforcing bars in concrete have electrical continuity and are connected to dedicated earthing terminals.
- b) Operating a train service for both freight and passengers. The Project shall be designed to accommodate a maximum of 25 tonnes/axle load.
- c) The Project shall accommodate train maximum design speeds as follows:
 - i. 80-100kph for freight trains;
 - ii. 120-160kph for passenger trains.

1.1.7. Train operations shall be controlled using a fully commissioned and operational ETCS-Level 1 train control system (equivalent or higher level).

1.2. Electromechanical System

1.2.1. The Project includes the detailed design, procurement, delivery, implementation, testing and commissioning of the Electromechanical System for a fully functional and integrated, safe, secure, efficient and reliable railway. The Electromechanical System works includes, but is not limited to the following Systems:

- a) Signalling and Train Control Systems.
- b) Communications Systems.
- c) Power supply and distribution for the Railway Network, Facilities and all Railway Systems, including the design and construction of electricity sub-stations as necessary and obtaining their associated planning consents.
- d) Information Systems.

1.2.2. An ETCS Level 1 signalling system (or equivalent or higher level) and Terrestrial Trunk Radio System shall be adopted.

1.3. Rolling Stock

- 1.3.1. Rolling stock is not included in this bidding.

1.4. Operational and Maintenance (O&M) Facilities

- 1.4.1. The Project includes the detailed design, procurement, construction, implementation, testing and commissioning of all elements for O&M facilities at the following locations.

(1) Distribution of rolling stock depot

The scale of rolling stock facilities is designed based on passenger and freight volume of 2040 and operation plan. There are 3 rolling stock facilities:

- 1) Setting a San Pablo rolling stock depot near SanPablo station.
- 2) Setting a Daraga rolling stock servicing workshop near Daraga station.
- 3) Setting a rescue base in Tagkawayan maintenance work area.

Heavy maintenance base (for locomotive and rolling stock depot) is set in San Pablo; medium maintenance bases are set in Tagkawayan and Daraga respectively; light maintenance bases are set in Agdangan and Naga respectively; duty points are set in other new stations and line posts respectively.

Besides the function of medium maintenance base, the main functions of SanPablo heavy maintenance base include: utilization, stabling, servicing, maintenance and calibration for track inspection vehicle, rail flaw detecting vehicle, rail grinding vehicle, track tamping machines (including track tamping vehicle, dynamic stabilizing vehicle and ballast regulating vehicle) for the whole line, temporary stabling, servicing, maintenance for heavy transportation rail vehicle and flatbed, storage and distribution of large size or important materials used for maintenance of the whole line, and calibration for small maintenance equipment.

Besides the function of light maintenance base, the main functions of Tagkawayan and Daraga medium maintenance base include: it also

provides the condition for utilization, stabling and servicing of heavy transportation rail vehicle and flatbed. And calibration for small maintenance equipment.

The main functions of Agdangan and Naga light maintenance base include: providing the condition for temporary utilization, stabling and servicing of dynamic inspection equipment and rail maintenance vehicles, operating, storage and maintenance of various types of small maintenance tools, stevedoring, storage and distribution of various types of maintenance materials and office and dormitory for maintenance and management personnel..

1.5. SLHP Location of the Works

- 1.5.1. The Works are located as indicated in Figure 1.1 above.

2. Scope of Works

2.1. General

- 2.1.1. The Works in the Project include the design, construction, manufacture, supply, installation, testing and commissioning of the Civil, Structure, Building, Track works, and Railway Systems for delivery of a fully functional and integrated, safe, secure, efficient and reliable single track mixed passenger and freight railway with Depot Complex as mentioned in Part 1.
- 2.1.2. The Contractor may also refer to the basic design report for the SLHP as included in Documents Provided by Employer.
- 2.1.3. The Works also include repairs or replacements until the end of the Defects Notification Period of all defective elements of the Works including civil, Permanent-Way, passenger facilities, E&M components and operation and maintenance facilities.
- 2.1.4. The Contractor shall make provisions in its design and construction activities and Works for giving access to and interfacing, integrating and coordinating with the activities, programme and works of the other contractors, third parties such as utility services owners.
- 2.1.5. The Contractor shall be responsible for managing, coordinating and resolving all interfaces of his Works with the Employer's other contractors, and third party stakeholders to achieve the Taking-Over of the Works in accordance with the Contract and the Time for Completion.
- 2.1.6. The Contract shall include, without limitation, the design, construction and removal of all the Temporary Works and handover the completed Works to the Employer in a condition in which the Employer shall immediately use the Works for the intended purpose, and/or to make them available to the Other Contractors who shall commence and carry out its work without delay or disruption. In full recognition of these objectives and with full acceptance of the obligations, the Contractor shall execute the Works taking into account all liabilities and risks that may be involved.
- 2.1.7. The Contractor shall be responsible for providing supports, including but not limited to the followings, to the Employer for obtaining all necessary approvals from the relevant authorities in Design, Construction and Commissioning of the Works.

- Provide all necessary information to the Employer necessary for obtaining the approval from relevant authorities;
- Provide support to the Employer in all co-ordinations with the relevant authorities.

The Contractor shall also comply with all the requirements from relevant authorities in his design, construction, procurement, delivery, installation and testing and commissioning of the Works.

2.1.8. The Works include but are not limited to the following components:

- a) All track components, including but not limited to rails, sleepers, fasteners, rail pads, base plates, ballast, sub-ballast, bonding, turnouts, crossings, track drainage, slab track, level crossings and signs and markers.
- b) Earthworks including cut and fill formations, track-side walkways, geofabric, slope surface protection, landscaping, irrigation and reinforced earth.
- c) Permanent and temporary highway crossing, access, and maintenance road Works.
- d) Surface and subsoil drainage including culverts, pipes, trenches, open channel drains and the like.
- e) Hydraulic and hydrological Works for flood protection of railway and the surrounding areas.
- f) Structures: over-bridges, under-bridges, storm-water culverts, retaining walls and the like.
- g) Permanent and Temporary utilities protection as required by the utility services owners.
- h) Fencing and gates.
- i) Electromechanical System as specified in Part 2.13.
- j) Cable containment and under-track crossing conduits and pits for the Railway Systems
- k) Line-side civil works (equipment bases etc.).
- l) Passenger Terminals.
- m) Depot Complex including the O&M facilities.

2.1.9. The Contractor shall support and provide materials for all public relations activities, which includes, but not limited to the following:

- i. During Planning, Pre-construction, and Construction period to exhibit the following:
 - a) Introduction of the Project and expected commercial operation date and expected Project impact to the affected residences and riding public;
 - b) Progress of the Project;
 - c) Major site works;
 - d) Inconveniences expected by the site works;
 - e) Public opinion of the project/site works;
 - f) Promotion materials (video, logo, etc.);
 - g) Other relevant information.
- ii. Conduct performance marketing using social network.

2.2. Right of Way (RoW), Site Extent and Limit of Use

- 2.2.1. In the Project, the Employer will be responsible for the land acquisition and getting the RoW. The Contractor shall co-ordinate and pass all necessary information for supporting the Advance Contract Contractor for the land acquisition and getting the RoW.
- 2.2.2. All the Permanent Works shall be located within the RoW.
- 2.2.3. For the Site extent, it shall be comprised the land required for the Permanent Works together with any other land that the Employer or the Contractor has obtained access to from third parties for the purposes of the Permanent Works. The Site extent shall also include any temporary easements or temporary possession of land for roadwork temporary access roads, utility protection works, yards, quarries, borrow pits, haul roads, compounds and the like, which the Contractor has agreed with third parties as part of his works, including the extent of all temporary and permanent traffic control measures on existing highways and roads and utility.
- 2.2.4. The Contractor shall provide access to the Employer and other contractors, such as the utility services owners' contractor, to carry out their works. Such access shall be subject to the Contractor's Access Regime, coordinated programme and Interface Management Plan.
- 2.2.5. The Contractor shall provide for the accommodation of the Employer on his Site as per Clause 4.
- 2.2.6. The Contractor shall be responsible for supporting the Employer in renewing, adjusting, supplementing and developing stakeholder records and Notice of No-objection in liaison with third party stakeholders and utility companies for the Works included but not limited to obtaining consent to the design, construction, methods of working and periods of access including for commissioning and future maintenance.
- 2.2.7. The Contractor shall comply with the requirements of the Project ECC, in preparing his detailed design and his Construction Environmental Management Plan.
- 2.2.8. The Contractor shall comply with any security and access control requirements of all relevant authorities including along the RoW, at the Passenger Terminals and Depot Complex sites.
- 2.2.9. Construction shall not commence until Employer gave a Right to access and possession of the site in accordance with the contractor's programme.

2.3. Traffic Management Plan

2.3.1. The Contractor shall submit a Traffic Management Plan and Traffic Impact Study (TIS) to the Employer explaining the extent of all proposed temporary and permanent traffic control measures for his construction related activities that affect existing highways, roads and utilities. The Contractor shall also support the Employer in all co-ordinations in related with obtaining approval from all necessary authorities in traffic management and traffic impact aspects, and shall comply with the requirements specified in the Notice of No-objection from the authorities.

2.3.2. Construction shall not commence until all necessary authorities have approved the Traffic Management Plan.

2.4. Power Supply

2.4.1. The Contractor shall procure the connection, supply and maintenance of all power and utilities required to supply permanent and temporary Works.

2.4.2. The Contractor shall pay all associated fees, invoices, rates and charges to all power, communications and utility companies / providers until Taking Over or earlier cessation of the services.

2.4.3. The Contractor's scopes also include provision of the permanent power supplies for the railway permanent works, including buildings of all substations and supporting the Employer in obtaining Notice of No-Objection from the power services company / providers, and any others as necessary for their works.

2.5. Utility Relocation and Protection

2.5.1. In the Project, it shall be the utility owners' responsibility for the relocation of existing utility. The Contractor's scopes shall include discovery and identification of existing and planned utilities that will be in conflict or having interface with the Works.

2.5.2. The Contractor shall also co-ordinate with the utility owners for all necessary requirement to facilitate relocation or protection works, including, but not limited to, the followings:

- Take into account for any requirements in the design in related to utility relocation or protection works;

- Take into account in his works area planning and allow access for the utility owners to carry out the utility relocation or protection works;
- Take into account in his programme for the utility relocation or protection works without any adverse impact on the delivery of the Project.

2.5.3. Existing and planned - future utilities and services include, but not limited to, the following:

- Overhead power transmission and distribution cables where there is adequate clearance between the cables and the proposed railway operations.
- Existing utility next to, over and under the proposed alignment, which may require relocation or protection as, required and agreed with those utility owners.
- Ground space where utilities are to be laid in future and provisions must be made to enable laying and protection of those planned or proposed utilities.

2.5.4. In case provisions within the ROW are required for the utility relocation or protection, the Contractor shall be responsible for the design and construction of those provision.

2.5.5. The Contractor shall incorporate in its design and construction of temporary and permanent protection structures that prevent transfer of unacceptable loads or vibrations, or which otherwise relocate, protect or make provisions for relocation that shall satisfy the requirements of the Utility Authority/Owner, so as to obtain Notice of No-Objection for their solution.

2.5.6. The Contractor shall provide all necessary information to the Employer and support the Employer in all co-ordinations with the utility owners for obtaining the consent for any proposed relocation, access or service interruption. The Contractor shall also comply with the requirements from utility owners for any proposed relocation, access or service interruption.

2.6. Diversions of Highways, Roads, Bridges, Culverts and other Civil Structures.

- 2.6.1. The scope of works includes the design and diversion of existing and projected highway infrastructure including temporary diversions and related works, bridges, roads, embankments, retaining walls, underpasses, traffic controls, major or minor traffic and pedestrian signage, sidewalks, street lighting, street surface and buried drainage, kerbs and storm-water gullies, manholes, chambers, street landscaping, barriers , fencing, gates, speed attenuation structures and the like, and as may be required by the relevant authorities in their Notice of No-objection.
- 2.6.2. The scope of works includes the design and construction of railway crossings by such structures as temporary level crossing, over-bridges (road-over-rail), under-bridges (rail-over-road), small underpasses (road/track-under-rail), and in each case, submit the recommendation of a type of railway crossing to the Employer for approval and to the relevant authorities for obtaining their Notice of No-objection.

2.7. Land Clearing, Disposal, and Demolition of Existing Building and other Structures.

- 2.7.1. The scope of Works includes site clearance, grubbing and demolition to be done in preparation for any Works, including removal, wholly or in part, and satisfactory disposal of all buildings, fences, structures, vegetation, abandoned utilities, pipelines within the RoW, which are not designated to remain as part of the SLHP.
- 2.7.2. The scope of Works includes consultation with, supporting the Employer for obtaining approval, and complying with requirements from relevant Stakeholders and local authorities for the disposal off Site of unsuitable hazardous, waste or surplus excavated material, and hard debris, such as concrete, building rubble, kerbing and road pavements, and the subsequent disposal off Site of any such materials.
- 2.7.3. The scope of Works includes preparing the ground surface within the Works compound areas for drainage, footings, paved areas, walkways and any other purpose to facilitate his Works.

2.8. Environmental Requirement

- 2.8.1. The Contractor shall take into account in his design, construction planning and the construction activities to adhere all the requirement specified in the EIA and

ECC, and shall follow the local statutory governing Standards and Specifications.

2.8.2. The scope of Works includes cutting and disposal off Site of trees which will conflict with the SLHP.

2.8.3. The Contractor shall conduct tree survey to obtain all necessary information for identification of trees that will conflict with the SLH. The Contractor shall also prepare and submit the tree cutting plan to the Employer for obtaining Notice of No-objection from relevant authorities.

2.8.4. No tree cutting is allowed until obtaining the Notice of No-objection of the tree cutting plan.

2.9. National Historical Preservation

2.9.1. The contractor's work in temporary protection or temporary relocation of National Historical Structures shall be in accordance of the prevailing historical structure preservation laws in the Philippines.

2.10. Railway Infrastructures

2.10.1. Bridge and Viaduct Structures

- a) Various structures shall be designed and constructed by the Contractor as a part of this project which include Rivers-crossing Bridges, Viaducts, Over Bridge, Under Bridge, Underpasses etc., as per the requirement specified in Part1.3,Part 2 Functional Requirements.

2.10.2. Earthworks

- a) The Contractor shall design and construct the earthworks including cut and fill formations, track-side walkways, geofabric, slope surface protection and erosion control, landscaping, and reinforced earth, as per the requirement specified in Part 1.4, Part 2 Functional Requirements.
- b) The Contractor shall also design and carry out the ground treatment for fulfilling the requirements of Earthworks, particularly the settlement requirements in Part 1.4, Part 2 Functional Requirements.

2.10.3. Buildings

a) The Contractor shall design and construct all building for the operation of the railway, including buildings facilities in Passenger Terminals Depot Complex and substations.

b) The Contractor shall also design, procure, deliver, install, and carry out testing and commissioning of the MEP system, including mechanical system (ventilation and air-conditioning), plumbing system, fire protection system, water supply distribution and pumping system and electrical system, for the operation of those buildings.

2.11. Civil and Miscellaneous Works

2.11.1. The Contractor shall design and construct the drainage, sewerage, waterworks and other utilities systems along the alignment including all other related works as considered necessary.

2.11.2. The Contractor shall design and construct infrastructure works for the Passenger Terminals and Depot Complex including but not limited to:

- a) Internal roads, pavements and footpaths;
- b) Access roads from the public highway;
- c) Water supply system including bore-wells, water treatment system including recycling plant for the trainwash at Depot Complex, storage tanks and pumping system sewage collection, treatment and disposal system including providing soak pits, septic tanks etc.;
- d) Storm drainage system, including road drainage;
- e) Street and general exterior lighting;
- f) Signages;
- g) All other related works and services as necessary to enable the Passenger Terminals and Depot Complex and its buildings to function properly.

2.11.3. The Contractor shall design and construct all Wayside Signs and sign boards along the alignment, and within the Passenger Terminals and Depot Complex.

2.12. Flood Protection

2.12.1. The Contractor shall carry out hydraulic and hydrology assessment for the Project, and design and construct the necessary works for the flood protection to the Project and the surrounding areas.

2.12.2. Return period for flood protection to the main works of subgrade and main structures of bridges and culvert shall be 1 in 100 years.

2.13. Electromechanical System

2.13.1. The Contractor shall design, procure, deliver, install, carry out testing and commissioning of the Electromechanical System for a fully functional and integrated, safe, secure, efficient and reliable mixed passenger and freight railway. The Electromechanical System works includes, but is not limited to the following Systems:

- a) Signalling and Train Control Systems.
- b) Communications Systems.
- c) Power supply and distribution for railway Facilities and all Railway Systems, including the design and construction of electricity sub-stations as necessary and obtaining their associated planning consents.
- d) Information Systems.

2.13.2. The Contractor shall design and construct the civil provision for the proper function of the Railway System, such as the wayside cable containment within the earthworks for track formation, viaducts and bridges.

2.13.3. The Contractor shall also allow in his design and provide justification to the Employer that the future installation of OCS and SCADA will not be frustrated, particularly in space aspect.

2.14. Track Works

2.14.1. The Contractor shall design, procure, delivery, install and carry out testing and commissioning of the trackworks for both ballasted and slab track, as per the requirement in Part 1.5, Part 2 Functional Requirements.

2.14.2. All track components, including but not limited to rails, sleepers, fasteners, rail pads, base plates, ballast and sub-ballast for ballast track, concrete blocks and slabs for slab track, vibration reduction, fittings and fixtures, spares as required,

bonding, turnouts, crossings, guard rail/check rail, track drainage, level crossings, signs and markers, and all other related works as necessary for the following:

- a) Main Line,
- b) Yards and Siding at each Passenger Terminals and Depot Complex, the design for sidings along the main line.

2.15. Operational and Maintenance (O&M) Facilities

2.15.1. The Contractor shall design, procure, deliver, install, construct and carry out the testing and commissioning of all elements for O&M facilities at the following location, as per the requirement in Part1.1,Part 2 Functional Requirements:

(1)Distribution of rolling stock depots

The scale of rolling stock facilities is designed based on passenger and freight volume of 2040 and operation plan. There are 3 rolling stock facilities:

- 1) SanPablo rolling stock depot near SanPablo station.
- 2) Daraga rolling stock servicing workshop near Daraga station.
- 3) a rescue base in Tagkawayan maintenance work area.

2.15.2. Heavy maintenance base (locomotive and rolling stock depot) is set in San Pablo; medium maintenance bases are set in Tagkawayan and Daraga; light maintenance bases are set in Agdangan and Naga respectively; duty points shall be set in other new stations and line posts respectively.

2.15.3. The Contractor shall also be responsible for the procurement, delivery and performance of the following railway maintenance equipment.

- Tracktamping vehicle
- Rail grinding vehicle
- Rail flatbed vehicle
- Track inspection vehicle
- Rail flaw detector vehicle
- Dynamic stabilizing vehicle
- Ballast regulating vehicle

- Heavy transportation rail vehicle

2.16. Fencing and Gates

2.16.1. The Contractor shall design and construct fence with access gates either side of the alignment all along the ROW, including any trackside ancillary buildings and facilities.

2.16.2. The Contractor shall design and construct fence with access gates around the perimeter of the Passenger Terminals and Depot Complex.

2.17. SLH Provisions for Future Electrification

2.17.1. The Contractor shall take into account in his design for the provision to enable future electrification, such as sufficient space and necessary clearance in the cut and embankment, viaducts, bridges, underpasses.

2.18. SLH Survey

2.18.1. The Contractor shall conduct topographical survey to obtain all necessary information for carrying out the design and construction works as per the requirements of the Project.

2.18.2. The Contractor shall also conduct other necessary survey to obtain all necessary information for carrying out the design and construction works for the flood protection to the Project and the surrounding areas.

2.19. Geotechnical Investigation

2.19.1. The Contractor shall conduct detailed geotechnical investigation to obtain all necessary geotechnical information for carrying out the design and construction works as per the requirements of the Project.

2.19.2. The contractor shall further evaluate the impact of unfavourable geological conditions and propose corresponding engineering measures to ensure that reliable geology-related assessment materials are available for railway design and construction. The unfavourable geological include but not limited to active

volcano, land subsidence, earthquake liquefaction, landslide, debris flow, seawater intrusion area and so on.

2.20. Validation/Refinement of Data

2.20.1. The Contractor shall validate the Data provided by the Employer or other Employer's contractors employed by the Employer including additional surveys if considered necessary by the Contractor for design of the Permanent Works and verify the available RoW at Site.

2.21. Associated Works and Temporary Works

2.21.1. Temporary Diversions and Restoration:

- a) The Contractor shall be responsible for all the necessary temporary traffic diversions and traffic management, waterway diversions / diversion of the natural water flow etc. as required for execution of the Permanent and Temporary Works and ensuring smooth flow of the same during construction and restoration of the same on Completion of the Works.
- b) The temporary barricading / fencing of the area shall be required while working so as to ensure both safe construction methodologies and safety of the public.

2.21.2. Temporary Facilities, Temporary Utilities and Equipment for Use by Contractor and others:

- a) The Contractor shall be responsible for the provision of all Temporary Facilities such as Provisional Site Office, Main Site Office, Site Huts, Survey Equipment and Temporary Utility Services, such as electricity and water supply, sanitation and sewerage, office cleaning, waste and garbage disposal etc. for the use of Contractor, the Employer during project execution.
- b) All the Temporary Works associated with the Permanent Works including but not limited to:
 - i. Access roads to Site as required.
 - ii. Temporary bridges, if required.
 - iii. Dismantling of the portion of existing structure (wherever and to the extent required) for the purpose of constructing Permanent

Work adjacent to it, with the Notice of No-objection from relevant authorities or stakeholders and approval of the Employer.

- iv. Temporary Facilities and Temporary Utility Services as required by the Contractor for the safe execution of the Permanent Works.
 - v. Temporary barriers and other protection measures in the vicinity of including but not limited to power lines, excavations, site delivery areas, batching plants etc.
 - vi. Temporary traffic management and Temporary Signage as necessary for safe movement of public and construction machinery associated with the execution of the Permanent works. All traffic control devices shall conform with the requirements of the DPWH or other relevant authorities.
 - vii. Excavation and associated temporary lateral support system.
- c) Any other temporary work as required for execution of the Permanent works and removal of the same on completion of the Work.

3. Project Management

3.1. Management Plans

- 3.1.1. The Contractor shall manage the Contract in a professional and competent manner in accordance with, best practice, various standards, and other obligations by incorporating these into a comprehensive series of Management Plans.
- 3.1.2. The Contractor shall outline the titles and outline content for each of these in an Inception Report to be submitted within 28 days of the Commencement Date. Each plan shall be standalone i.e. cover the subject in its entirety although references to other Management Plans can be made where procedures are interlinked. The Contractor shall programme the development of these plans such that any Management Plan which is referenced in another is available at the appropriate time. The programme of Management Plan submissions and the mobilisation Programme for the entire Contract shall be included in the Inception Report.
- 3.1.3. The completed set of documents shall cover all of the Contractor's proposed procedures, methods, processes, organisation and logical sequencing and when combined shall demonstrate that these will combine to completely fulfil the Contract requirements.
- 3.1.4. The exact make up and interlinking of the Management Plans shall remain the responsibility of the Contractor however the following is a list of Plans which shall be provided as a minimum:

Project Management:

- Project Management Plan
- Project Health and Safety Plan
- Project Environmental Plan
- Design Management Plan
- Quality Assurance Plan
- Document Control Procedure
- Change Control Plan
- Document Submittal Register
- Construction Management Plan
- Interface Management Plan

- Risk Management Plan

Systems Engineering and Assurance

- Systems Engineering Management Plan
- System Safety Plan
- RAMS Plan
- EMC Management Plan
- Software Quality Plans
- Requirements Management Plan
- Configuration Management Plan
- System Verification and Validation Plan
- Interface Management Plan

Construction and Installation Management

- Site Management Plan
- Site Safety Management Plan
- Waste Management Plan

Testing and Commissioning Management

- Testing and Commissioning Plan
- Factory Acceptance Test Plans
- Site Inspection and Testing Plans
- Integrated Testing Plan
- Test and Trial Operations Plan

Completion Management

- Operations and Maintenance Training Plan
- Spares Delivery and Storage Plan
- DLP Management Plan

3.2. Programme

3.2.1. General

- a) The Contractor shall manage the Programme in accordance with a series of Programmes and Sub-Programmes to form the basis of the scheduling of activities both on and offsite and against which the Contractor shall provide regular and ad hoc reports. The initial Baseline Programme shall be submitted as part of the Inception Report

and shall include the baseline programme updated from that issued 28 days after commencement date.

- b) The programme shall be arranged such that the Completion Date and interim Key Dates are met with the main elements / stages of works shall be broken down into a logical Work Breakdown Schedule. The WBS and general logic of the programme, including identification of the Critical Path with mitigating measures to ensure on time completion shall be included in a Programme Narrative which shall be submitted with each Baseline and Sub-Programme. The Programme Narrative will explicitly describe any dependencies in the programme attributed to Interfacing and 3rd Parties and these shall be covered in the relevant Management Plans, particularly the Interface Management Plan to describe the management of such inputs including mitigation in case specific information or deliverables are not available at the time envisaged in the Programme
- c) All programmes shall be fully logically linked, resourced and cost loaded. Each activity in the programme shall clearly describe a discrete element of works and be fully linked to predecessors and successors. Milestones shall not be used as constrained dates in the Programme.

3.2.2. Rolling and Look-ahead Programmes

- a) The Contractor shall prepare and maintain the following rolling and look-ahead programmes as a minimum for regular reporting however, any other reasonable request for sub-programmes shall also be provided:
 - 3 Month Rolling Programme
 - 1 Week Review and 4 Week Look-ahead Programme
- b) All of these programmes shall be logically linked to the main Programme and extracted from it.

3.2.3. Detailed Sub-Programmes

- a) The Contractor shall prepare and maintain the following sub-programmes, giving further detail on the particular topics but logically linked to the main Programme:
 - i) Deliverable Submissions Programme
 - ii) Procurement and Manufacturing Programme
 - iii) Construction and Installation Programme

- iv) Coordinated Installation Programme
 - v) Testing and Commissioning Programme
 - vi) Training Programme
 - vii) Test and Trial Running Programme
- b) All of these programmes shall be logically linked to the main Programme and extracted from it.

3.2.4. Works Programme Revisions

- a) The Contractor shall immediately notify in writing of the need for any change in the Programme, where his will impact the Completion Date or any Interim Milestone date within 14 days of the event initiating the change. The notification shall include the reason for the change and any mitigation measures that have been implemented, or will be implemented, to protect the Completion date or subsequent Milestone Dates.
- b) If the actual or anticipated progress of the work reflects a change, a revised Programme may be requested with an accompanying Programme Narrative. The proposed revised Programme shall show the sequence of operations of any and all work related to the change and the impact of changed work or changed conditions on the Works.

3.3. Time-Chainage Diagram

- 3.3.1. The Contractor shall submit a Time-Chainage Diagram to the Employer for approval showing all the construction, installation and testing & commissioning activities along the alignment.
- 3.3.2. The Contractor shall create the basic tasks and build necessary linkages to demonstrate the commencement and completion of all the Works to meet with contractual Times for Completion and Key Dates.
- 3.3.3. The Works Programme shall be prepared based on the same construction methodology and assumption on resources and construction rate made in the Time-Chainage Diagram.
- 3.3.4. The Contractor shall update this Time-Chainage Diagram after the construction phase starts and submit it to the Employer on a monthly basis.

3.4. Document Submittal Register (DSR)

- 3.4.1. The Contractor shall submit a register covering all proposed document submittals to the Employer for approval (the “DSR”).
- 3.4.2. The DSR shall include all documents the Contractor shall submit to the Employer as part of the Scope of Works.
- 3.4.3. The Contractor shall ensure that all submissions listed in the DSR are properly co-ordinated with the Contractor’s Works Programme, particularly in respect of the following:
 - a) The progress of detailed design, shop drawings, interface coordinated drawings, test reports, as built drawings, training manuals, O&M manuals, etc.
 - b) Activity ID, Activity Code (stage, system, subsystem, location etc).
 - c) A review cycle period of 14 days, for the Employer and allowance for resubmissions and comments close-out.
- 3.4.4. The DSR shall be reviewed and revised as required to maintain its currency, reflecting any additions, omissions or alterations.

3.5. Progress Reports and Coordination Meetings

- 3.5.1. The Contractor shall monitor progress against the Programmes and Sub-programmes to demonstrate sufficient progress to complete the Works in accordance with the requirements. This progress and issues relating to it shall be described in the following periodic documentation which may be requested as a deliverable:
- 3.5.2. Daily monitoring of the progress e.g. site reports, timesheets and the Monthly Progress Reports in writing and submitted by the 5th working day of the succeeding month. The Monthly Progress Report shall take account of work performed up to and including the last day of the preceding month and shall be a comprehensive and clear record of all activities and significant issues including an executive summary and evidence of completion of Milestones, Key Dates, deliverables etc.
- 3.5.3. Physical Progress Report based on earned value techniques. The Contractor’s proposal for the Physical Progress Report and basis for measuring progress shall be:

- a) Broken down into discrete measurable units that are time phased (0% to 100% complete) in accordance with the Contractor's programme and maximum limit.
- b) Key work activities for reporting progress
- c) Activities that are able to be measured quantitatively rather than subjectively as the work progresses.

3.5.4. Progress Meetings

- a) The Contractor shall be required to attend progress meetings every month held at dates and times generally not later than ten days after the issue of the Contractor's Monthly Progress Report. The Contractor shall ensure that attendees capable of discussing, clarifying and explaining the content of the Monthly Report and matters arising are present at all meetings.
- b) The Contractor may also be required to attend ad hoc or interim meetings convened at any time upon reasonable notice either on or off the Site, to discuss and address any aspect of the progress of the Contract.
- c) Quarterly Review Meetings may be convened in the vicinity of the Contractor's local Project office approximately three monthly intervals with notice of usually not less than twenty-eight days before the meeting unless the event causing the meeting is significant and implications, solutions or implications need to be discussed more urgently.
- d) The normal Quarterly Review Meetings shall be held over a period of up to three days in order to review, address and resolve any issues relevant to the execution and progress.
- e) The Contractor shall have in attendance one senior representative of Director level from each of the companies comprising the Contractor, together with the Managing Director of the company acting as leader or sponsor of the Contractor.
- f) The Contractor shall prepare minutes of all such meetings which will be submitted for review and comment by the Employer after which all agreed minutes shall be signed off.

3.6. Interface Management

3.6.1. System Integration

- a) The Contractor shall provide the Works such that all internal and external systems are designed, manufactured, constructed and installed so as to be functionally, spatially and economically compatible with each other and with other Projects, Facilities, Systems and civil engineering infrastructure.
- b) The Contractor shall be responsible for ensuring that the Works is properly interfaced and integrated.

3.6.2. Interfaces

- a) For the duration of the Works, the Contractor shall be responsible for coordination of all interface activities, deliverables and programme interface milestones, with all persons, agencies, authorities, firms, companies or any organisation whatsoever having any impact on the execution and completion of the Works by the Contractor (Interfacing Parties), including without limitation:
 - i. Other contractors working at or near the Site.
 - ii. Other designers preparing future projects for execution at or near the Site.
 - iii. Other contractors working on projects and facilities related to the Project.
 - iv. Contractors or suppliers pre-approved by the Employer and awarded sub-contracts by the Contractor.
 - v. Consultants, designers, contractors and suppliers to the Project appointed by the Employer.
 - vi. Owners and operators of existing and proposed ports.
 - vii. Utilities and services providers that the Contractor shall need to provide supplies to the Works.
 - viii. Local Authorities, Agencies and Government Departments from whom the Contractor shall obtain permission, or approvals for the Works (Notices of No-objection).
 - ix. The Railway Operator.
- b) The Contractor shall also be responsible for coordinating all interfaces that he is leading with the works of the Employer's contractors and other contractors during all phases of the contract (design, construction, manufacturing, installation, testing and commissioning, and Defect Notification period).

- c) The external interfacing parties (Stakeholders) include those who may be identified by the Contractor or others in the future as being required for progress, approval or completion of the Works, or whose work is, being impacted by or impacting the Works.
- d) The Contractor shall be responsible for:
 - i. Developing and updating a comprehensive Stakeholder list.
 - ii. Developing and updating a Stakeholder Management Plan.
 - iii. Determining and issuing interface information in the format requested by each Stakeholder as and when necessary to Stakeholders.
 - iv. Organizing, chairing and taking minutes of all Stakeholder meetings (minimum monthly).
 - v. Obtaining all necessary Notices of No-objection, permits and approvals from Stakeholders for design and installation of the Works, including Notices of No-objection to confirm completion of the Works where relevant
 - vi. Coordinating and interfacing with and accommodating Third Party Stakeholders who have requested Notices of No-objection from Employer. This will include evaluation of Third Party proposed infrastructure and schedule, and recommending solutions to the Employer, which shall include the preparation of a draft Notices of No-objection response on the Employer's behalf.
- e) The Contractor shall be responsible for coordinating all system interface activities within its Works during design, manufacturing, installation, construction and testing and commissioning.
- f) The Contractor shall hold and retain the responsibility to coordinate and cooperate with any interfacing party diligently and in a timely manner considering the timeline of the Interfacing Parties and to the satisfaction of the Employer.

3.6.3. Cooperation and Coordination

- a) The Contractor shall coordinate and cooperate with Interfacing Parties on all Site related matters including but not limited to Site access and occupation, safety, verification of work compatibility and survey control. He shall advise the Interfacing Parties in advance when a

construction item is ready for inspection, or test whether in the field or manufacturing plant to verify compatibility with the Interfacing Parties' needs, and shall facilitate access to the Site or third party property (as the case may be) for the Interfacing Parties.

- b) Should construction or installation be under way by other contractors or third parties within or adjacent to the limits of the work specified, the Contractor shall cooperate and coordinate with all the other contractors or third parties, to avoid that any delay or hindrance to their work.
- c) The Contractor shall share access to the Site, and other contract sites and facilities, and perform the Works concurrently in the same location and at the same time as works of other contractors and operations of others. The Contractor shall assume that all contractors and any other organization working near or within the Project sites will require access through the Contractor's Site.
- d) When two or more contractors are employed on related or adjacent work, or obtain materials from the same material source, each shall conduct their operations in such a manner as not to cause any unnecessary delay or hindrance to the other.
- e) The Contractor shall give direction on all Site related matters, including safety, site security, verification of work compatibility and survey control.
- f) The Contractor shall be responsible for giving their support and cooperation to the Employer's other contractors in the planning of access and coordination of all work. The Contractor will be responsible for coordinating their design and construction, across all disciplines, with Interfacing contractors and third parties.

3.6.4. Interface Management Plan

- a) The Contractor shall prepare and submit for the Employer's acceptance an Interface Management Plan.
- b) The Interface Management Plan shall detail the Contractor's approach towards managing project interfaces, system migration, project integration and the organisation, staff, methods, procedures and tools which the Contractor shall put in place to manage the interfaces to achieve full integration and coordination of the Works.
- c) The Contractor Interface Management Plan shall address all interfaces, allowing sufficient flexibility to accommodate changes in the interfaces

identified during the early stage of design and additional interfaces identified during the following phases of the execution of the Works.

- d) The Contractor's Interface Management Plan shall identify the interface points with others and associated actions to mitigate any potential impact to the Programme.
- e) The Plan shall also address and cover all foreseeable interfaces during the course of execution of the Works from start of design through to testing and commissioning.
- f) The Contractor's Interface Management Plan shall include as a minimum:
 - i. Interface requirements for each Design Control Point.
 - ii. Interfacing and integration parties and responsibilities.
 - iii. Integration strategy, phases, roles, milestones and responsibility.
 - iv. Interface and integration risks management, compliance and traceability.
 - v. Systems Interface Diagrams.
 - vi. Systems Interface Matrix or Block Diagrams.
 - vii. Summary of Interface Control Documents for each interface.
 - viii. Key Staff responsible for Interface and Integration coordination.
 - ix. Interface Management organisation and resource plan.
 - x. Interface Management procedures and processes for control.
 - xi. Further documentation templates as appropriate.
 - xii. Combined service drawings preparation, procedure and coordination.

3.6.5. Interface Register

- a) The Contractor shall develop an interface matrix and interface items log (Interface Register).
- b) The Contractor shall use the requirements management tool to manage all interfaces and maintain its status.
- c) The database tool and format shall be subject to the Employer's approval.

- d) The Contractor shall provide updates to Interface Register on a monthly basis.
- e) The Contractor shall immediately inform the Employer if there are any changes in the Contractor's planned execution of the Works that have (or may have) an impact on the work being or to be performed by others, or if additional interfaces are identified by the Contractor.

3.6.6. Interface Documentation

- a) The Contractor shall produce Interface Control Documents (ICD), with input from interfacing parties, to define the scope of each interface which they are leading.
- b) The Contractor shall continue developing the ICD, alongside the interfacing parties, throughout the duration of the project.
- c) Formalisation of agreed technical interface resolution will be the formal signed-off ICD.

3.6.7. Organisation and Management

- a) The Contractor shall appoint an Interface and Integration Manager who shall be responsible for overseeing, coordinating and managing all interfaces and systems.
- b) These personnel shall be experienced enough in these roles on similar projects and shall be familiar with all aspects of the Works and capable of, and authorized to, communicate directly with the Employer and other contractors and third parties etc. on interface, coordination and integration related issues.
- c) At design review, all interface requirements shall be included with all interface parties involved in a documented review and approval process.

3.6.8. Reporting

- a) The Contractor shall prepare a Coordinated Interface Report.
- b) The Coordinated Interface Report shall include the Contractor's schedule for interface coordination. Subsequently, they shall be kept up to date and submitted on a quarterly basis to the Employer for his information, review and comment, and a summary of principal issues shall be included in each Monthly Progress Report.
- c) The Coordinated Interface Report is the document, which describes the Contractor's interface management implementation status in terms of

providing a clear description of each of the interfaces, both technically and sequentially, and represents an account of how the Contractor achieves coordinated and integrated design and coordinated and integrated execution.

- d) The Coordinated Interface Report shall be supported by the Interface Matrix and the Interface Register.
- e) The Coordinated Interface Report is also required to demonstrate that the coordinated and integrated design and execution details described therein fully comply with the needs of others.
- f) The Contractor's Coordinated Interface Report shall:
 - i. Include an account of how the interfaces are being managed;
 - ii. Identify the latest information regarding agreements with the Interfacing Parties and transfers of information;
 - iii. Identify any problems related to coordination with Interfacing Parties;
 - iv. Identify working access provision for interfacing parties in terms of specific requirements from commencement of the Contractor's possession of Site, and allocation of space for working room, adequate access and the provision of temporary facilities;
 - v. Accommodate comments and input required by the Employer;
 - vi. Follow the outline structure, numbering system, and related procedures provided by the Employer;
- g) The Contractor shall instigate and maintain a programme of continuous proactive approaches to the interfaces in his plan to promote sharing of information and problem solving at interfaces.
- h) The Contractor shall advise the Employer in writing of any problems encountered by him during proactive approaches he may have made in obtaining necessary information, and/or lack of cooperation from any Interfacing Party or construction contractor.
- i) In the event that the Employer considers that an interface is not proceeding satisfactorily, the Employer, within the framework of a government coordination committee or not, will review the matter and propose a coordinated plan including the Contractor and the Interfacing Party or Parties as to the required action.

3.6.9. Interfacing Parties

- a) The Contractor shall be drawn to the attention on the interface parties and the associated interface issues in the below Table 3.1 for the Project.

Table 3.1: Tentative Interface Parties and Associated Interface Issues

Interface Parties	Tentative Interfaces Issues
1. Operators employed by the Employer	<ul style="list-style-type: none">• Testing and commissioning issues.• Operation and maintenance issues.
2. DPWH or relevant authorities	<ul style="list-style-type: none">• Permanent and temporary diversion of existing roads, highways, bridges, culverts and other civil structures.
3. Utility Owners	<ul style="list-style-type: none">• Utility diversion or protection.• Permanent and temporary utility supply.

4. Employer’s Facilities on-site

To ensure the priority and efficiency of construction supervision services by PMC, all of the facilities for the implement of site supervision activities shall be furnished by the DB Contractor, including but not limited to:

- (1) Working offices, including office furniture, office equipment, daily necessary stationeries and necessities;
- (2) Standard material testing laboratories for construction supervision (Offices, test equipment, spare parts and enough office supplies);
- (3) Site transport vehicles (including driving services, insurance, fuel and etc.);
- (4) Enough Dormitories for residential engineers, supervisors and supporters;
- (5) Site survey equipment for implement of site supervision activity;
- (6) Communication equipment necessary for supervision activity.

The cost of the accommodation, facilities and equipment for the Employer and residential construction supervisor on his Site shall be included in the financial proposal of DB Contractor as per the following schedules.

4.1 Brand New Vehicles

Table 4.1: Schedule of Brand New Vehicles Schedule

Quantity	Description
21	4×4, pickup, diesel engine, double cab, 4 doors, camper shell, including its operation and maintenance, drivers, fuel, lubricants, repairs, insurance, etc. for the duration of the Contract and ending until taking over the Section of the works.
14	4×4, off-road, diesel engine, double cab, 4 doors, camper shell, including its operation and maintenance, drivers, fuel, lubricants, repairs, insurance, etc. for the duration of the Contract and ending until taking over the Section of the works.

4.2 Office Buildings and Living Quarters

Table 4.2: Schedule of Office Buildings and Living Quarters

Quantity	Description
7	Satellite Office Building – 250 sqm floor area, with internet and intranet network, with blinds on all windows, including its operation and maintenance, electricity, water, communications, 24-hour security, utility personnel, etc. for the duration of the

	Contract and ending until taking over the Section of the works.
7	Main Living Quarters – 20 rooms, with blinds on all windows, including its operation and maintenance, electricity, water, communications, 24-hour security, utility personnel, etc. for the duration of the Contract and ending until taking over the Section of the works.

4.3 Furniture, Equipment, and Appliances for Offices

Table 4.3: Schedule of Furniture, Equipment, and Appliances for Offices

Quantity	Description
14	The Contractor shall set up one (1) VideoConferencing System (VCS) for each Satellite Office Building, one (1) in the DOTr'sProject Management's Office, and one (1) in the PNR'sProject Management's Office. It shall be designed to keep confidential information and conversations behind closed doors. The VideoConferencing System shall be well equipped to provide, but not limited to, the following functions: a) High speed internet connection (internally and outside the Philippines with a minimum speed of 20 MBPS); b) Video Conferencing System; c) High Fidelity Speaker-phones; d) Interactive Board Screen and White Boards; e) Digital Audio and Video Projections; f) High Definition Video Cameras; g) High Quality Speakers; h) Proper Software/Solution with robust features for smooth functions.
14	Office Desk – 80 cm × 140 cm, with drawers with locks and keys
126	Office Desk – 70 cm × 120 cm, with drawers with locks and keys
7	Clerical Desk – with drawers with locks and keys
14	Swivel Chair – on rollers, with armrest, with padded seat and back rest
7	Clerical Chair – swivel type
7 sets	Visitors Chair – upright, with padded seat and back rest
140	Steel Filing Cabinet – with 4 drawers with locks and keys, fire resistant
140	Horizontal Plan Filing Cabinet – with 6 drawers with locks and

	keys, fire resistant
140	Plan Filing Rack
140	Bookshelf
7 sets	Conference Table – for 10 persons
70	Conference Chair – swivel type
7	White Board – 90 cm × 160 cm
140	Laptop Computer – Windows OS, Core i7 CPU or equivalent, 16 GB RAM, 1 TB data storage, 1080p resolution 15” screen, WiFi card, USB and HDMI ports, with mouse, with Microsoft Office
140	Desktop Computer – Windows OS, Core i7 CPU or equivalent, 64 GB RAM, 2 TB data storage, 1080p resolution 27” screen, WiFi card, USB and HDMI ports, with mouse and keyboard, with Microsoft Office and CAD software
7	Network Printer/Copier – heavy duty, laser, colour, A3 size, with scanning capability
14	Printer – portable, colour, A4 size, with scanning capability
140	Cell-phone – Android OS, 8 GB RAM, 500 GB data storage, 1080p resolution 6” screen, with GPS-tag-gable 16 MP camera, with power bank
7	External Hard Drive – 4 TB
14	Portable Hard Drive – 1 TB
280	Flash Drive – 64 GB
35	Air Conditioner – 1.5 hp, window type
35	Air Conditioner – 1 hp, window type
70	Electric Stand Fan – 16” diameter blade
14	Refrigerator – 10 cu ft
35	Water Dispenser – electric, hot and cold
14	Pencil Sharpener – table-mounted
7	Cutting Mat – 24” × 36”, self-healing
35	Ruler – 36”, steel
35	Ruler – 12”, plastic
35	Scissor
35	Two-Hole Puncher

35	Tape Dispenser
35	Cutter
35	Incoming/Outgoing Table Tray
35	Stapler
35	Stapler Remover
35	Field Book
140	Waste Bin – plastic
35	Fire Extinguisher – 10 lbs
35	First Aid Kit
14	Manual of Chinese Railway Standards – English version

4.4 Furniture, Equipment, and Appliances for Living Quarters

Table 4.4: Schedule of Furniture, Equipment, and Appliances for Living Quarters

Quantity	Description
210	Bed – single, with 10 cm thick foam rubber mattress
14	Dining Table – for 10 persons
140	Dining Chair – upright, with back rest
14	Long Sofa – for 4 persons, with synthetic leather upholstery
35	Air Conditioner – 1.5 hp, window type
35	Air Conditioner – 1 hp, window type
70	Electric Stand Fan – 16” diameter blade
140	Refrigerator – 10 cu ft
140	Gas Stove – 2-burner, with hose regulator and LPG tank
14	Water Dispenser – electric, hot and cold
140	Dining Set – spoons, forks, plates, cups, and saucers
7	Kitchenware Set – tray, 5 serving plates, 5 serving bowls, pitcher, chopping board, 3 kitchen knives, casserole, frying pan, etc.
140	Television Set – 36” screen, colour
140	Pillow – 30 cm × 60 cm × 15 cm, with pillow case
280	Bed Sheet – 150 cm × 200 cm, cotton
210	Blanket – 160 cm × 200 cm, cotton

140	Fire Extinguisher – 10 lbs
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4.5 Quarterly Supplies and Consumables for Offices

Table 4.5: Schedule of Quarterly Supplies and Consumables for Offices

Quantity	Description
21	Network Printer/Copier Toner Cartridge
21	Portable Printer Ink/Toner Cartridge
210	Copy Paper – A3 size
630	Copy Paper – A4 size
420	Cell Card – ₱500
1050	Mineral Water – 5 gallons

4.6 Quarterly Supplies and Consumables for Living Quarters

Table 4.6: Schedule of Quarterly Supplies and Consumables for Living Quarters

Quantity	Description
42	LED Bulb – 20W
280	Mineral Water – 5 gallons
20	LPG – 11 kgs

4.7 Personal Protective Equipment

Table 4.7: Schedule of Personal Protective Equipment

Quantity	Description
210	Hard Hat
210	Safety Vest – reflectorized
210	Safety Shoe – steel toe

Part Two Functional Requirements

1. Functional and Technical Requirements

1.1. Depot Complex

1.1.1. Distribution of rolling stock depot

The scale of rolling stock facilities is designed based on passenger and freight volume of 2040 and operation plan. There are 3 rolling stock facilities:

- a) Setting a SanPablo rolling stock depot near SanPablo station.
- b) Setting a Daraga rolling stock servicing workshop near Daraga station.
- c) Setting a rescue base in Tagkawayan maintenance work area.

1.1.2. The function of rolling stock depot

- a) SanPablo rolling stock depot: Undertaking operation and maintenance tasks of DEMU and freight rolling stock. Setting matched operation and maintenance equipment, and subsidiary production and life facilities.
- b) Daraga rolling stock servicing workshop: Undertaking operation tasks of part of DEMU and freight locomotive. Setting subsidiary production and life facilities.
- c) Tagkawayan rescue base: Undertaking accident rescue of the project, and emergency rescue traction task when DEMU is forced to stop.

1.2. Electromechanical System

1.2.1. Signalling and Train Control Systems

- a) The main purpose of Signalling is to secure the safety of train operation in all signalling areas including depot and passenger terminals.
- b) The contractor shall take full responsibility for design, supply, factory testing, installation, testing and commissioning, training, defects and liabilities for the signalling system.

- c) The Contractor shall provide all necessary equipment, wiring and cabling as required to fit each systems, as part of the signalling scope.
- d) The signalling and train control system shall cover the mainline, depot and passenger terminals of the SLH.
- e) The signalling system shall be based on ETCS Level 1(equivalent or higher level) technology.
- f) All outdoor equipment shall be constructed in a sufficiently robust manner, and arranged so as not to suffer deterioration, wear, or damage due to vibration or shock loads encountered.

1.2.2. Communications Systems.

- a) The Contractor shall provide communication systems to meet the operation and maintenance needs of the SLH, including but not limited to the following subsystems:
 - i. Communication Lines;
 - ii. Transmission System;
 - iii. Data Communication Network System;
 - iv. Telephone switching System ;
 - v. Mobile Communication System ;
 - vi. Wired Dispatching Communication System;
 - vii. Video Conferencing System;
 - viii. Private Emergency Communication System;
 - ix. Clock Synchronization and Time Synchronization System;
 - x. Power Supply Equipment system;
 - xi. Power Supply and Equipment Room Environment Monitoring;
 - xii. Equipment Lightning Protection and Earthing;
 - xiii. Integrated Network Management system.
- b) The contractor shall take full responsibility for design, supply, factory testing, installation, testing and commissioning, training, defects and liabilities for the communication system.
- c) The Contractor shall provide all necessary equipment, wiring and cabling as required to fit each subsystems as part of the communication scope.

d) The communication system shall cover the mainline, depot and passenger terminals of the SLH.

1.2.3. Power supply and distribution system

a) The Contractor shall provide Power supply and distribution system to meet the operation and maintenance needs of the SLH, including but not limited to the following subsystems:

I. External 11kV Power Supply System;

II. 11kV substations

III. 11/0.4kV substations including box-type substations; Pole mounted substation.

IV. 11kV power cable wiring system which include 11kV station cable wiring system and 11kV power through line.

V. Indoor and outdoor equipment power and lighting wiring system.

VI. Lighting protection system and grounding system for buildings.

VII. Power tele-control system for 11kV substations and 11/0.4kV substations.

b) The contractor shall take full responsibility for design, supply, factory testing, installation, testing and commissioning, training, defects and liabilities for the communication system.

c) The Contractor shall provide all necessary equipment, wiring and cabling as required to fit each subsystems as part of the communication scope.

d) The Power supply and distribution system shall cover the mainline, railway stations port area spur line, depot and passenger terminals of the SLH.

1.2.4. Information Systems.

a) The Contractor shall provide information systems to meet the operation and maintenance needs of the SLH, including but not limited to the following subsystems:

i. Ticketing and Reservation System

ii. Passenger Service Management Information System;

iii. Office Management Information System ;

iv. Transportation Dispatching Management System;

- v. Rainfall Monitoring System ;
- vi. Integrated Wiring system ;
- vii. Automatic Fire Alarm System (FAS) ;
- viii. Electro& mechanical equipment monitoring system (BAS)
- ix. Power Supply and Environmental Monitoring System

b)The contractor shall take full responsibility for design, supply, factory testing, installation, testing and commissioning, training, defects and liabilities for the information system.

c) The Contractor shall provide all necessary equipment, wiring and cabling as required to fit each subsystem as part of the information scope.

d)The information system shall cover the mainline, depot and passenger terminals of the SLH.

1.3. Bridges and Structures

1.3.1. Clearance

- a) The Contractor shall take into account in the design of the over-bridges, under-bridges, rail viaducts, river crossing bridges and underpasses for the following clearance requirement:
 - i. Structuregauge requirement for all rolling stocks, including engineering trains, DEMU and the futurefreight rolling stock;
 - ii. Track-sided cable containment;
 - iii. Allowance for future electrification.
- b) For public roads and highway crossing, clearance requirement from DPWH shall be followed.

1.3.2. Fire Resistance of Structures

- a) The Contractor shall carry out study to specify the fire resistance of the structural elements based on the location and functional requirement of the structure.
- b) Fire performance of all structural elements shall meet the requirements of the local codes.

1.3.3. Earthing, Bonding and Lightning Protection

- a) Earthing, bonding and lightning protection shall be provided for all bridges and building structures.
- b) The systems are required to ensure that under all normal, foreseeable and degraded fault conditions, the touch and step potential between conductive surfaces do not exceed the safe limits.
- c) The Earthing and Lightning Protection Systems shall be designed and installed to assure personnel and staff safety.
- d) The Earthing and Lightning Protection Systems shall be designed and installed to provide adequate protection to electrical and electronics systems.

1.3.4. Vehicle Parapets for over-Bridges

- a) Solid parapets of minimum 1.5m above walkway level shall be provided on over-bridges, while solid parapets of minimum of 1.1m above walkway level shall be provided on the approaches.
- b) For the span length of the over-bridges, the parapet shall have the safety fence from the top of the parapet and extending a minimum height of 2.0m above the top of parapet level

1.3.5. Handrails for Under-Bridges

- a) Parapets shall be provided to restrain personnel and minor maintenance equipment from falling from the bridge onto the road right of way below.
- b) The design shall be designed aimed at to minimise damage to the bridge superstructure and allow speedy replacement in the event of impact from a train which, during a derailment event, is not contained by the derailment control and/or protection measures implemented in the design that limit the transverse movement of a derailed train.

1.3.6. Provision for Train Derailment

- a) The structures shall be designed in such a way that, in the event of a derailment, the resulting damage to bridge structures is limited to a minimum.
- b) Set guard rails on the bridge and part of the retaining wall road to protect the train from derailment.

1.3.7. Drainage and Flood Protection

- a) Adequate drainage provision shall be provided for collecting surface water from structures.
- b) Backfill materials behind abutments and wing walls shall be granular, free-draining materials to prevent build-up of hydrostatic pressure behind the wall.
- c) All bridges passing over watercourses shall be protected from flooding under 1 in 100 years return period.

1.3.8. Erosion and Slope Protection

Adequate erosion control and protection shall be provided for slopes behind bridge abutments.

1.4. Earthworks

1.4.1. Width of Rail Track Formation

The Contractor shall take the following consideration into account in determining the width of rail track formation in embankment or cutting:

- i. Alignment requirement;
- ii. Structure gauge requirement for all rolling stocks, including engineering trains, DEMU and the future freight rolling stock;
- iii. Track-sided cable containment;
- iv. Allowance for future electrification.

1.4.2. Surface Clearance

- a) Before the embankment construction, all sod and vegetable matter shall be removed from the surface on which the embankment is to be placed, and the cleared surface shall be completely broken up.
- b) The compaction of sub-soil shall be carried out after the removal of the top layer of natural soil (cleaning minimum thickness: 300 mm).
- c) The Contractor shall fill up all holes with the same material of the core embankment.

1.4.3. Earth Materials

- a) Suitable excavated materials along cut sections shall be used for embankment sections (local fill) to minimize outsourcing the materials

from other locations. The fill material shall satisfy design requirements of Standard Specifications.

- b) Through the entire cross section, the materials of each layer shall belong to the same material group or subgroup of the People’s Republic of China Code.

1.4.4. Compaction

- a) The Contractor shall follow the compaction requirement specified in Standard Specifications.

1.4.5. Drainage and Flood Protection

- a) Design flood levels along the alignment shall be taken into account during subsequent phases of the Project. Return period for flood protection to all railway facilities shall be 1 in 25–50 years.
- b) Drainage facilities shall be designed to prevent flooding along the railway and saturating the subgrade which may cause local failure.
- c) Adequate drainage facilities, such as ditch canals, shall be constructed at both sides of the track to facilitate drainage along the railway. Transverse slope of 4% shall be provided in the subgrade surface for both cut and fill sections to facilitate natural flow to water to ditch canals. Intercepting ditch and cross-drains shall be required, as dictated by the existing condition along the alignment.

1.4.6. Settlement Requirement

- a) All the rail track formation in embankment and cut section shall comply the following settlement requirement.
- b) Settlement limits for serviceability purposes to limit track movement shall generally be as follows:

Table 1.1:Control Standard of Post-construction Settlement of Embankment

Post-construction settlement in normal sections(mm)	Post-construction settlement in transition sections near end of bridge abutment(mm)	Settlement rate (mm/year)
200	100	50

1.4.7. Embankment Slope Protection

- a) Adequate erosion control and protection shall be provided for all filled and cut slopes.

1.5. Trackworks

1.5.1. Safety Requirements

- a) Derailment Prevention and Containment
 - i. Derailment prevention measures, such as the use of guard rails, shall be provided at all high risk structures, beneath, over or adjacent to the railway such as major bridges, viaducts, aimed at to confine any derailed train within the track itself. The Contractors shall determine the derailment prevention measures required, the locations and details, and submit to the Employer for approval.
 - ii. The derailment prevention and mitigation measures shall be designed such that in case of a derailment of the followings:
 - On a bridge, the train shall remain on the bridge;
 - Damage to the bridge or structure is minimized.
- b) Vandalism
 - i. The track system and track system components and railway access points shall be protected from vandalism or interference by the use of appropriate security measures.
- c) Prevention of Trespass onto the Railway
 - i. Measures shall be taken to prevent inadvertent and accidental trespass onto the railway.
 - ii. A risk assessment of the railway route shall be performed to determine what measures are required at specific locations along the railway.
 - iii. Sidings, depots and passenger terminals shall require particular measures to deal with the prevention of trespass by errant vehicles.

1.5.2. Rail Gauge & Gauge Widening

- a) Track gauge is 1,435 millimeters (standard gauge).
- b) Widening of track gauges will be considered on sharp curves ($R < 295$ meters).
- c) The outside rail shall be considered as the datum rail for all gauge widening.

- d) The change in gauge widening shall be located within the transition at the start of the circular curve.

1.5.3. Axle Load and Speeds

- a) The axle loads to be considered in the selection of trackwork components shall be:
 - i. Up to 25 tonne axle load for freight trains;
 - ii. 25 tonne axle load locomotives on all freight services.
- b) The train speeds to be considered in the selection of trackwork components shall be:
 - i. 80-100kph for freight trains (future provision);
 - ii. 120-160kph for passenger trains.

1.5.4. Track Construction / Installation

- a) Detailed method statements for the installation of the track shall be submitted to the Employer for approval including details of: -
 - i. Track laying machines and other plant and equipment including certificates where appropriate;
 - ii. Inspection and test plans.
- b) Demonstration Track
 - i. Demonstration track shall be constructed by the Contractor.
 - ii. In the case of ballasted track, the demonstration track shall be constructed on an approved section of the permanent rail alignment and shall have a minimum length of 500 metres.
 - iii. In the case of slab track, the demonstration length of track shall be within the Contractor's work base area or on an approved section of the permanent rail alignment.
 - iv. The demonstration track shall be installed following the Contractor's approved method statement and using the equipment planned for Main Line track.
 - v. The completed demonstration track shall meet the installation tolerance requirements for Main Line track and shall be removed and re-installed if the tolerances are not met.
 - vi. Approval by the Employer will relate only to the method used, and shall not in itself confirm or be regarded as implying that the

demonstration track has achieved a minimum acceptable quality standard in all respects.

c) Contractor's Construction Facility

- i. The Contractor shall establish the track-laying and bridge-erection base. And it is envisaged that the base shall include the following functions:

To function as the central track materials storage area and the depot from which track construction will occur.

To function as the T-beam precast yard and storage area.

- ii. The Contractor shall submit full details of the layout and facility requirements to the Employer for approval prior to any work being done at the rail head depot.
- iii. On completion of the track works, the temporary construction facility shall be removed from site and the area rehabilitated back to its original condition.

The Contractor shall submit to the Employer for approval a detailed method statement for the survey and set-out for installation of track and for survey and checking to provide as-built data for acceptance of track.

- d) The Contractor shall submit to the Employer for approval a detailed method statement for the survey and set-out for installation of track and for survey and checking to provide as-built data for acceptance of track.

1.5.5. Track Installation Tolerances

The Contractor shall submit the track installation tolerance limit to the Employer for approval. The tolerance limit shall include but not limit to the following aspects:

Track Gauge

- Variation on track gauge at any point

Horizontal Alignment

- Variation from design alignment at any point
- Maximum different between adjacent versine (versine measured with a 20m chord.)

Vertical Profile (Top)

- Variation from design rail level at any point

- High and low smoothness of track (measured with a 10m chord)

Super elevation (cant) or cross level

- Variation from design cant or cross level at a point
- Twist (baseline length 6.25 m)

Rail Welding

- Maximum deviation on the rail head running surface (measured with a 1 metre straight edge centrally placed about the weld centreline after final grinding)
- Maximum deviation on the side of the rail head (measured with a 1 metre straight edge at 16mm below the rail crown centrally placed about the weld centerline after final grinding)
- Offset of Rail Foot
- Grinding length on either side of the weld

Sleeper Spacing

- Variation on design sleeper spacing or rail support at any point (but not to detract from the design number of sleepers or rail supports per kilometre)
- Variation in design sleeper spacing or rail support when adjusting sleeper spacing to meet fixed locations
- Sleeper squareness to the centreline of track measured at the gauge lines

Ballast Profile

- Variation from design width of ballast shoulder at any point
- Variation from design ballast depth under sleeper at any point

Slab Track

- Variation of finished surface of the slab from design level

Part Three Design Requirements

1. Design Requirements

1.1. General

- 1.1.1. This section specifies the requirements for the preparation and submission of the design of the Works. The Contractor shall be responsible for the design of the Works and shall ensure his design is accurate and in compliance with the Employer's Requirements.
- 1.1.2. The Contractor shall establish an office for his dedicated design team in the Main Site Office of the Contractor and referred to as Design Team. The Design Team shall function from this office and all meetings and discussions relating to design shall be held in this office or in the office of Employer and / or as instructed by the Employer. In addition to the requirements herein, the Contractor shall, whenever the Employer so requests, provide information and participate in discussions that relate to design matters.
- 1.1.3. The members of the Design Team shall have the experience and qualification appropriate to the type and magnitude of the design involved. Full details regarding their qualifications and experience shall be submitted to the Employer for his consent.
- 1.1.4. To clarify the responsibility and the authority, the Contractor shall also establish a Construction Team independent of the Design Team.
- 1.1.5. The Contractor shall ensure that the Design Team continues to be represented at Site at all times by staff whose seniority and experience are to the satisfaction of the Employer and whose representative shall be available on the Site as necessary or as required by the Employer.
- 1.1.6. During the Design Phase (Detailed Design Stage and Construction Design Stage), the Contractor shall comply with all the requirements pertaining to Safety, Health and Environment. If there are discrepancies between documents referring to the same subject, the more stringent criteria shall be followed, unless otherwise the order of precedence described in the relevant documents is not applicable.
- 1.1.7. The Contractor shall submit plans, programmes, reports, manuals and drawing in line with project schedule. It shall also include the additional information as

required by the Employer and / or required for co-ordination of the design of Other Contractors.

- 1.1.8. The Employer shall review the submissions to be satisfied that the submittal covers the obligations and intended purpose of the design of the Works and fully complies with the Contract.
- 1.1.9. The designs shall be submitted within the specified dates as agreed in the Design Submission Programme proposed by the Contractor.
- 1.1.10. The design of the Works shall be carried out in accordance with the requirements as included in the Employer's Requirements.
- 1.1.11. Design submissions including Detailed Design, Construction Design, As-Built Documents shall include a valid "Design Check Certificate" duly signed by the Chief Design Engineer of the Contractor's Design Team. This will certify that the Contractor has carried out the design and fully checked the design as being compliant with the design criteria, all quality assurance procedures and fully compliant with the requirements of the Contract.
- 1.1.12. For Temporary Works, the contractor shall be responsible for the design of all Temporary Works of whatever nature. The independent checking engineer appointed by PMC shall be responsible for checking the effect of the Temporary Works on the Permanent Works and shall ensure that the Permanent Works are capable of withstanding any effect imposed by the Temporary Works.
- 1.1.13. The Contractor is responsible for implementing all the mitigations, recommendations and further actions stipulated in the EIS and the associated documents, including but not limited to further studies, design, surveys, monitoring and auditing etc. In case there are changes proposed by the Contractor, the Contractor shall be responsible for seeking approvals from the relevant authorities, at no additional cost and programme implications.

1.2. Regulations, Standards and Codes of Practice

- 1.2.1. Where the Employer has developed Design Criteria in this section to describe its requirements in relation to Design Regulations, Standards and Codes of Practice and Design Criteria, the Contractor shall design in accordance with the directions and guidance within this section.
- 1.2.2. International standard shall be applied to the design, including standard of the People's Republic of China and Philippine Standard. Thereinto, for design of

alignment, station & yard, track, subgrade, bridge & culvert, electrical, information, disaster prevention, rolling stock and infrastructure maintenance, standard of the People's Republic of China shall be applied; while for the design of building structure, environmental protection, fire-fighting and heating & ventilation, the Philippine standard shall be applied or standard of the People's Republic of China for reference; The communication system shall adopt ETSI standard or UIC standard while the signal system shall adopt standard of the People's Republic of China or European standard.

1) The main standard of the People's Republic of China for reference in the design are listed below:

- Code for Design of Railway Alignment (TB10098-2017)
- Code for Design of Railway Track (TB10082-2017)
- Code for Design of Railway Station and Terminal (TB10099-2017)
- Code for Design of Earthworks and Track Bed For Railway (TB10001-2016)
- Code for Design of Railway Bridge and Culvert(TB10002-2017)
- Code for Seismic Design of Railway Engineering(GB50111-2006)
- Code for Design of Railway Electric Power(TB10008-2015)

2) The main Philippine specifications for reference in the design are listed below:

- National Building Code of Philippines
- National Structural Code of the Philippines
- National Electrical Code of the Philippines
- Philippine Fire Code and Revised Fire Code of Philippines-Implementing Rules and Regulation of Act-No9514 otherwise known as the Fire Code of the Philippines of 2008(IRR-Act No9514)
- The American Society of Heating Refrigerating and Air-conditioning Engineers(ASHRAE)
- PD No. 1067(1976), Water Code
- RA 9275(2004), Clean Water Act
- Dao No.2005-10, IRR of the Clean Water Act
- RA No. 8749(1999), Clean Air Act

3) The main standard of the People's Republic of China for reference regarding building materials are listed below:

- Concrete for railway construction (TB/T 3275-2018)
- Railway ballast (TB/T 2140-2008)

1.2.3. The Contractor shall make the Employer aware of any changes or updates to the Standards in use and the impact the changes might have on the Works, if adopted for the Contract by the Employer.

1.3. Seismic Design

1.3.1. All the structures under the Project, including bridges, embankment, buildings, shall be designed to be seismic resistant.

1.3.2. The soil supporting SLHP structures shall also be analyzed for liquefaction hazard and mitigation measures shall be taken.

1.4. Flood Protection

1.4.1. The Contractor shall carry out hydraulic and hydrology assessment for the design of the flood protection measures to be adopted under the Project.

1.4.2. The Contractor shall demonstrate in the Detailed Design that adequate drainage provision has been provided and the design of the SLHP facilities has considered the flood condition under 1 in 25-50 years return period, such that the operation of the SLHP will not be affected and all railway facilities will not be damaged.

1.4.3. The Contractor shall also demonstrate in the Detailed Design the flood risk or flooding condition of the surrounding area will not be adversely affected due to the SLHP Works.

1.4.4. The Contractor shall assess any risk of scour or erosion, particularly structures in vicinity of watercourse crossing, and shall design the appropriate protection measures to protect the structures.

2. Requirements During Design Phase

2.1. Contractor's Organisation During Design Phase

- 2.1.1. Within 28 days after the Commencement Date, the Contractor shall submit the Project Organization Plan which includes complete project organization chart during the Design Phase. The Design team shall consist of fully qualified design personnel with the Engineer's consent for each key personnel. This plan shall be updated and resubmitted whenever there are changes to the personnel. The Plan shall show the management structure and state clearly the duties, responsibilities and authority of each key and staff member.
- 2.1.2. The Contractor shall establish the Design Team in his organization independent of the Construction Team, which shall be also maintained in the construction phase to ensure that the design development complies with the detailed design approved by the Employer.

2.2. Inception Report

- 2.2.1. Within 28 days after the Commencement Date, the Contractor shall submit the Inception Report describing the execution strategies.
- 2.2.2. The Inception Report shall include the main documentation needed to prepare and to develop the Detailed Design and to demonstrate compliance with design requirements, including, but not limited to, survey and investigation plans, design submission plan and programme, reviews of the Employer's documents. The report shall sufficiently define the main structures, track alignment & track components, building services, rolling stock and rail sub-systems and services etc. In addition, general construction, manufacture, installation, testing and commissioning methodologies and documentation required to develop the Detailed Design shall be submitted.

2.3. Technical Requirement Report

- 2.3.1. Before any Detailed Design, the Contractor shall submit a Technical Requirement Report to the Employer for approval. The Technical Requirement Report shall describe the technical and design criteria, the design

methodology, and all the material specification with testing and acceptance criteria for the all the Works under the Contract.

2.4. Detailed Design

- 2.4.1. The design of the Works shall be fully developed and detailed to the detailed design by the Contractor. The detailed design shall be prepared in accordance with the requirements included in the Employer's Requirements. The drawings and documents shall be submitted in the detailed design Submission to the Employer for approval.
- 2.4.2. During the preparation of the detailed design, the Contractor shall in particular:
- i. Complete necessary calculations and analysis;
 - ii. Assess and take full account of the effect on the Works of the proposed methods of construction, installation, testing and commissioning and temporary works.
 - iii. Complete the validation of the necessary data provided by the Employer including all the additional surveys, investigations and testing as considered necessary by the Contractor to develop the detailed design of the Works in accordance with the Contract.
- 2.4.3. The detailed design shall include the Technical Drawings, the Works Specification, the detailed design Report, the Construction Method Statement and all other contents of the detailed design Submittals.
- 2.4.4. The Contractor shall sub-divide the detailed design of the Works Segment into Design Packages for submission and the sub-division shall be identified in the Design Submission Programme. The Design Packages shall facilitate the review and understanding of the detailed design as a whole and shall be produced and submitted in an orderly, sequential and progressive manner to suit the construction sequence and the Works Programme.

3. Design Submission and Review Process

3.1. General

- 3.1.1. The Contractor shall prepare the Design Submission Schedule (for Design Phase and Construction Phase) which is to set out fully the Contractor's anticipated programme for the preparation, submission by the Contractor and review of the Design Packages, the approval by the Employer for all stages of design. The Design Submission Schedule shall be an extraction from the Contractor's overall Project Schedule and shall cover all submissions during the Design and Construction Phases including completion documentation such as As-Built documentation including Operation and Maintenance Manuals, the Trial Running Report etc.
- 3.1.2. The Design Approval Procedure described herein shall constitute a formal procedure the Contractor shall follow in obtaining Approval for his design and documentation of the Works.
- 3.1.3. The Contractor shall retain full responsibility for managing the design and for the maintenance of all documentation associate with the design process.
- 3.1.4. The Contractor shall submit for Approval his design as individual packages, all of which shall be listed in a schedule of Designs to be submitted by the Contractor.
- 3.1.5. Approval of the Contractor's design packages and documents shall be conditional upon the Contractor having obtained all relevant Notice of No-objection from relevant authorities and stakeholders.
- 3.1.6. The Contractor's design submissions shall follow the sequence detailed below:
- Stage 1 - Approval in Principle Submissions
 - Stage 2 - Detailed Design submissions
 - Stage 3 - Issue of Drawings for Construction
 - Stage 4 - As-built Drawings and Approved Design Data Submissions
- 3.1.7. The Contractor shall include the following in his submissions for Approval:
- i. Documents such as reports and specifications 5 copies
 - ii. Electronic copies of all drawings & documents 1 copy

3.2. Planning, Programming and Progress Monitoring of the Design Process

- 3.2.1. The Contractor shall submit a preliminary design programme within 28 days from the Commencement Date.
- 3.2.2. The Contractor shall allow fourteen (14) calendar days for the Employer's review each design submission or re-submission.
- 3.2.3. In the event that the Employer considers the review period of 14 days provides insufficient time to enable proper checking and validation to be carried out, he will require the Contractor to amend the programme by breaking down the design submissions proposed to facilitate checking and Approval within the time constraint defined. The Contractor shall revise and resubmit his programme accordingly.
- 3.2.4. The Contractor shall allow in his programmes at least one re-submission per design package.
- 3.2.5. The Contractor shall, within 28 days from the date of the Commencement Date, submit for Approval a Schedule of Designs in an Approved format. The Schedule of Designs shall comprise a complete listing of all design packages, drawings and other design deliverables that the Contractor intends to submit in order to obtain Approval of his design on a progressive basis and meet the programme requirement of the Contract.
- 3.2.6. The Schedule of Designs shall contain the following information for each Design Package:
 - a) Design package number and title;
 - b) Outline description of the package;
 - c) Programmed date for issue of the Approval in Principle Document;
 - d) Number of drawings in each package together with drawing title, number and scale;
 - e) Programmed date for issue of each drawing as an Advanced Checking print (ACP);
 - f) Programmed date for issue of each completed working drawing;
 - g) Programmed date for issue of any supplementary specification;

- h) Programmed date for issue of the Operation and maintenance Manuals and as-built drawings;
 - i) The Contractor shall indicate the planned dates for any Government consultation submissions that may be required;
- 3.2.7. The Approved Schedule of Designs shall be incorporated in and logically linked to the Contractor's detailed Design and Construction Programme.
- 3.2.8. The Schedule of Designs will provide the baseline against which the design progress is measured and reported. Each month the Contractor shall submit together with his Monthly Progress Report an updated hard and electronic copy of the Schedule of Designs stating the percentage completion for each design package, drawing and design deliverable.

3.3. Web-Based Project Management System

- 3.3.1. A web based Electronic Project Management System will be adopted as the basis for workflow and communication between the Employer, and the Contractor. The system adopted e.g. Aconex, Share-point or any other product proposed by the Contractor shall be agreed in advance with Employer.
- 3.3.2. The Contractor shall prepare, upload and submit all correspondence and submissions using the agreed Electronic Project Management System in an Approved format such as Microsoft® Excel, Microsoft® Word, JPEG, Auto CAD or Bentley Microstation®, Adobe® Acrobat and project management system Primavera® or other as approved with the Employer.
- a) Correspondence and transmittals;
 - b) Progress reports and meeting minutes;
 - c) Submission of all design deliverables including drawings and responses to comments;
 - d) As-built records and O&M Manual submissions;
 - e) All construction submissions; and
 - f) Site photographs.

3.4. Approval in Principle (AIP) Submission

- 3.4.1. The Contractor shall submit six (6) copies of the AIP submission for every independent major structural item. Included with his submission shall be copies of any relevant Government approvals or agreement which apply to the Works.
- 3.4.2. The Employer shall respond in writing advising the Contractor of his AIP review.
- 3.4.3. If the AIP report is Approved, Approved subject to conditions or Approved subject to receipt of other approvals. The Employer shall sign and return one copy of the report to the Contractor for his records.
- 3.4.4. If the AIP report is disapproved, the Employer shall return to the Contractor one copy of the report unsigned together with his reasons for its rejection for revision and re-submission.

3.5. Detailed Design Submissions

- 3.5.1. Following Approval of the AIP submission, the Contractor shall proceed with the detailed design of that part of the Works. Each design package submitted for Approval shall comprise a full set of Drawings and specifications sufficient to enable the Employer to gain a full appreciation of the Contractor's design and proposed methods of construction and assess that the design satisfies the Contract requirements.
- 3.5.2. No construction of any part of the Works shall commence until the Employer has Approved all relevant designs.
- 3.5.3. For each submission, the Contractor shall ensure that all deliverables are fully complete and comply with the requirements of the Contract. Each detailed design package shall include two copies of the Design Certificate, each signed by the Contractor and Independent Checking Engineer. For each detailed design package, the Contractor shall include;
 - i. 10 sets of drawings
 - ii. 4 sets of documents
 - iii. 1 electronic copy of all drawings and documents.
- 3.5.4. All detail design drawings shall be submitted in the form of Advanced Checking Prints (ACP's) and signed off in accordance with the Contractor's Quality Assurance procedures to confirm the completion of internal design checks prior to issue. The Contractor shall maintain a running register of all

design package submissions which he shall actively monitor to avoid delays to the submission and approvals process.

3.5.5. The Employer shall confirm in writing his Approval or otherwise of the submission as follows:

- a) For an 'Approved' package, returning to the Contractor one copy of the design package together with one signed copy of the Design Certificate
- b) For an 'Approved, subject to correction of minor non-compliance' package, returning to the Contractor one copy of the design package, one signed Design Certificate and written details of the amendments required to achieve unconditional Approval
- c) For a 'Disapproved' package returning to the Contractor one original Design Certificate signed to indicate approval withheld and one copy of the design package with the drawings and documents suitably annotated to indicate the reason(s) for rejection.

3.5.6. For 'Disapproved' designs, the Contractor shall revise the package according to the Employer's comments and resubmit for the Employer's approval as aforesaid.

3.5.7. The Contractor shall also submit BIM models of bridges and buildings during Detailed Engineering Design and shall achieve LOD 300.

3.6. Issue of Drawings for Construction

3.6.1. Subsequent to the Approval of individual design packages the Contractor shall proceed with the issue of working drawings and documents.

3.6.2. The Contractor shall issue to the Employer the following working drawings and documents:

- a) 16 sets of drawings;
- b) 5 sets of documents
- c) 1 electronic copy of all drawings and documents

3.6.3. If after gaining design Approval, the Contractor subsequently introduces modifications in order for him to meet his obligations under the Contract or for any other reason, he shall seek the Employer's approval of the proposed change(s). For minor drawing amendments, the Contractor shall complete a Drawing Amendment Sheet (DAmS) and submit to the Employer. The Employer shall review the proposed amendment and if he Approves the change

shall sign off the DAmS accordingly, returning the original signed copy to the Contractor who shall arrange for its issue to his own staff.

- 3.6.4. When a number of DAmS have accumulated, the Contractor shall incorporate all previously Approved DAmS changes into a revised drawing and resubmit this for Approval. The number of DAmS which triggers the drawing revision shall be subject to the Employer's approval. Re-submission of drawings for Approval shall comply with the procedures described in Clause 3.5.

3.7. As-Built Drawings and Approved Design Data Submissions

- 3.7.1. The Contractor shall, submit for Approval as-built drawings of the relevant part of the Works as completed and in sufficient detail to satisfy that the Employer will have a true and accurate record of the aforesaid works as constructed.
- 3.7.2. As-built Drawings shall include all civil engineering reports and design amendments arising during the design and construction stages.

3.8. Approval of Submissions

- 3.8.1. Within 14 Days of the receipt of the Contractors submission, the Employer shall return the Design and Check Certificate advising that the submitted submissions have been Approved, approved with comments or have failed to meet the requirements of the Agreement. The Contractors Submission not Approved or Approved with comments shall be resubmitted within 7 Days thereafter.
- 3.8.2. The Contractor Submission will be deemed to be not Approved should it contain a Change not authorised by the Employer or be of insufficient or inaccurate detail or quality to convey the design requirements of the submission.
- 3.8.3. The Contractor shall, when resubmitting submissions for Approval, provide a detailed reply including a list of confirmed remedial actions taken against the reasons stated by the Employer for the failure to obtain Approval. Resubmission will not be accepted for review unless accompanied by a list of confirming actions together with a Design Certificate.

3.8.4. Any modifications or additions to Approved Submissions which may result in a Change shall only be made after receipt of authorisation of the Employer.

3.8.5. When assessing the acceptability of the Contractor Submission, the Employer shall adopt the following categories:

Table 3.1: Categories of Deliverables Acceptability

Category	Recommendation	Reasons or Description
A	Approved	Deliverable fulfils all the Employer's requirements and relevant authorities / stakeholders' requirements where appropriate and relevant design codes and design specifications.
B	Approved in principle, but deliverable needs to be amended and resubmitted for formal approval.	There are mistakes or omissions, but they do not generally affect the safety or the purpose of the structures or facilities.
C	Not approved.	The deliverable does not fulfil the requirements for approval stated in Category A or B.

Part Four Construction Requirements

1. Requirements During Construction Phase

1.1. General

- 1.1.1. The principal requirements during the Construction Phase are the production, submission and consent of the Construction Design, the As-Built Documents and the O&M Manuals.
- 1.1.2. Upon the approval of a Detailed Design Package, the Contractor shall produce the respective Construction Design Package which shall include, but not limited to,
- viii) Technical Drawings derived from the Detailed Design Package
 - ix) Specifications including Method Statements / work procedures / construction sequences
 - x) Working Drawings to supplement the Technical Drawings with additional details required for manufacture, installation and connection of all equipment and materials.
 - xi) Shop Drawings including site sketches, bar bending schedules, bar reference drawings, fabrication and erection sequences etc.

1.2. Design Services during Construction

- 1.2.1. The Contractor shall provide continued design services as necessary during construction and maintain a permanent core design team on Site.
- 1.2.2. The more specific design tasks and other requirements to be met by the Contractor during construction include but are not limited to:
- a) Preparation of shop, working, fabrication, erection, installation drawings and as-built drawings and the like.
 - b) Review of shop drawings and the like by the Contractor's designer for stamping and signing off as approved such that they meet the Contractor designer's intent.
 - c) Response to Requests for Information in relation to the Design.

- d) Preparation of Drawing Amendment Sheets (DAS) to expand or clarify details in the design drawings to facilitate construction, or for correction of errors in the Contractor design prior to construction.
- e) The incorporation of Field Change Requests from site (FCR) into the Design and approval of such changes by the Contractor's designers before submission of the FCR documentation to the Engineer for final acceptance.
- f) Design amendments or calculation work to provide solutions to Non-Conformance Reports.
- g) Review of the design and amendment if necessary to accommodate any change in the construction methodology, sequencing or temporary works loading, introduced after the completion and acceptance of the design at DOTr

1.2.3. Field Changes shall be requested by the Contractor when technical agreement is required from the Engineer to a proposed action that will conflict with 'Approved For Construction' status design documentation.

1.2.4. The Contractor shall maintain a register of all field changes.

1.3. Construction Specifications

1.3.1. For Contractor designed works, the Contractor shall prepare sets of construction and fabrication specifications which will be coordinated with the information shown on the construction drawings in accordance with the following steps:

- a) The Contractor shall develop and submit drafts of construction specifications for those elements for which standard specifications are not available.
- b) The Engineer will review and comment on the Contractor's submission. The Contractor shall then revise its prepared specifications and standard specification updates and modifications, copies of which will be furnished to the Engineer for further assessment.
- c) The Contractor shall submit all required specifications with final updating, corrections and modifications indicated on hard copy.

- 1.3.2. The Engineer will review and may request minor corrections as required. The Contractor shall incorporate the above modifications in the pertinent specification sections.

1.4. Shop Drawings

- 1.4.1. Prior to commencing construction of, or incorporating, elements within the Works, Shop drawings shall be checked by the Contractor's designer as meeting the intent of the Design.

1.5. Method Statements and risk analysis

- 1.5.1. Prior to commencement of each work activity, submission of a Method Statement (including a Risk Analysis) and an Inspection and Test Plan by the Contractor shall be approved by the Engineer.
- 1.5.2. The Method Statement shall describe the logical and progressive manner by which the Works will be executed and describe the Goods, Materials, Plant, Equipment, and Contractor's Personnel needed to undertake these works.
- 1.5.3. Such Method Statement shall be annexed with a Risk Analysis, which break down the Works into discrete activity items and assesses the likelihood and severity of the risk and the mitigation measures that may be required to bring the risk to an acceptable controlled level. The Works shall not commence until the Contractor's Health and Safety Manager, Project Director and Construction Director have reviewed and signed off this document prior to issue to the Engineer for his review and comment. The risk analysis is to be updated as the Works progresses as needed.
- 1.5.4. Once the Method Statement and Risk Analysis documents have been approved by the Engineer, the Contractor shall be expected to undertake a presentation of this document to his staff, work crews, drivers and machine operators who will be undertaking the Works. The presentation shall be given by the supervisor, foreman or engineer who is directly responsible for the control of the men and the standard of work to be produced.
- 1.5.5. The Contractor shall also refer to and comply with the health and safety requirements or regulation in Philippines.

1.6. As-Built Documentation

- 1.6.1. The Contractor shall maintain all records necessary for the preparation of the As-built documents.
- 1.6.2. The As-Built Drawings shall be a full set of the latest revisions of the Construction Technical Drawings, which are updated to incorporate all DAS and FCR and as many Working Drawings as necessary to convey a full and true record of the as-built condition of the Works.
- 1.6.3. The As-Built Drawings shall show all changes from the Construction Design, all construction deviations and all other features relevant to the future maintenance and management of the Railway and its facilities.
- 1.6.4. The As-Built Drawings shall be endorsed by the Contractor as true records of the construction of the Works.
- 1.6.5. The As-Built Records shall include survey results including geotechnical, all inspection records, and other relevant documents.
- 1.6.6. The Contractor shall submit BIM models of bridges and buildings as part of the As-Built Documents. The Documents shall be provided in both paper format and electronic copy. The Contractor shall submit Building Information Modelling (BIM) models as part of the As-Built Documents. The BIM models shall be consistent with the As-Built Drawings and shall achieve the Level of Detail (LOD) 500.
- 1.6.7. The Operation and Maintenance Manuals (O&M Manuals) shall be included as part of the As-Built Documents. The Q&M Manuals shall include, but not be limited to, the followings:
 - O&M manuals for Bridge Structures,
 - O&M Manual for rail tracks,
 - O&M Manuals for Maintenance Depot Facilities;
 - O&M Manual for Building Mechanical/ Electrical/Plumbing;
 - O&M Manuals for each Railway Systems.
- 1.6.8. Collectively the O&M Manuals shall be sufficient for the Operator to operate and maintain the railway for the full design life and service requirements specified in the Contract.
- 1.6.9. All the As-Built Drawings and Records shall be submitted prior to the commencement of the Trial Running.

2. System Assurance and Risk Management Requirements

2.1. General

- 2.1.1. System Assurance (SA) and Reliability, Availability, Maintainability and Safety (RAMS) are a set of planned and systematic activities to ensure that the systems to be delivered under this Contract shall be safe and reliable for use in railway operations.
- 2.1.2. The Contractor shall submit the SA/RAMS documentations as required in the subsequent clauses of this section for the review without objection of the Engineer.

2.2. System Assurance and Risk Management Organization

- 2.2.1. The Contractor shall establish a dedicated organization responsible for planning, undertaking, monitoring and managing of all SA/RAMS activities and enable effective communication among all relevant parties.
- 2.2.2. The Contractor shall appoint a competent System Assurance Manager on or before the Date for Commencement of the Works to manage all the system assurance activities as described in this section.
- 2.2.3. The System Assurance Manager shall have sufficient experience and adequate skills of system assurance in the railway industry. Curriculum vitae (CV) of the proposed System Assurance Manager shall be submitted to the Engineer for review without objection prior to the commencement of the system assurance works.
- 2.2.4. The Contractor shall submit the alternative personnel to the Engineer for review without objection in case of the change of System Assurance Manager.

2.3. System Assurance and Risk Management Plan

- 2.3.1. The Contractor shall submit a System Assurance and Risk Management Plan (SARMP) to the Engineer for review without objection within 90 Days upon the Date for Commencement of the Works.
- 2.3.2. The SARMP shall describe in detail how and when the Contractor will undertake the SA/RAMS activities and shall, as a minimum, contain the details below:
- a) Project Scope of Design;
 - b) Organisation & Key Personnel;
 - c) Roles and Responsibilities;
 - d) Monitor/Control of Sub-Contractors (if any);
 - e) Integration of System Assurance & RAMS Analysis with Design;
 - f) SA Programme; and
 - g) Techniques and Methods to be employed.

2.4. Risk and Safety Requirements

- 2.4.1. Risk and Safety Management Process
- a) The Contractor shall implement a safety risk management process.
 - b) The Contractor shall undertake all safety activities to demonstrate that the residual safety risks to workers, staff and passengers have been reduced to a tolerable level in accordance with the ALARP principle (As Low As Reasonably Practicable).
 - c) The safety risk management process shall identify all risks associated with the Project, Construction, Operations and Maintenance of the railway system in a Hazard Log. The Contractor shall also review and provide solutions / mitigations to the activities listed in the Hazard Log.
 - d) The ALARP principle shall be used to address all the identified risks in the Hazard Log so that they are either eliminated or reduced to a tolerable level.
 - e) The Contractor shall be responsible for the management and close-out of all hazards items recorded in the Hazard Log.
 - f) The Contractor shall treat risk mitigation measures which are to be mitigated by design as forming an additional set of design safety

requirements which need to be satisfied through the Contractor's Assurance Process.

- g) The Contractor shall demonstrate through safety assurance reports that all safety requirements have been satisfied.
- h) Risks and mitigations which the Contractor proposes for export to the Engineer shall be reviewed without objection by the Engineer.

2.4.2. Hazard Identification

- a) The Contractor shall conduct formal hazard identification and analysis exercises, including the following analyses, to identify all relevant risks systematically.
 - i. Preliminary Hazard Analysis: to conduct top level assessment on the design and identify potential risks at early stage, and to initiate appropriate actions to mitigate/eliminate the risks.
 - ii. Systems/ Subsystems Hazard Analysis: to identify and assess risk associated with the design of subsystems including component failure modes, critical human error inputs, and risks resulting from functional relationships between components and equipment comprising each subsystem.
 - iii. Interface Hazard Analysis: to identify and assess existing or potential risks between subsystems and/or systems and their effects on overall system safety and operations. The emphasis of the assessment shall be focused on interfaces between systems/subsystems.
 - iv. Operating & Support Hazard Analysis: to identify and analyse risks associated with personnel and procedures during operation, maintenance and emergencies scenarios.
- b) The Contractor shall conduct formal Hazard Identification workshops, with the participation of relevant personnel from the Engineer, during Design stage, to identify the hazards and propose appropriate mitigation measures.
- c) The purpose, scope, methodology and risk logging mechanism to be adopted for the workshop shall be submitted to the Engineer for review without objection prior to commencement of the workshop.
- d) The Contractor shall produce Hazard Log, containing hazards which may affect the safe and / or reliable operations of the future railway due

to the design, construction, installation, testing, commissioning, operation and maintenance of the Works.

- e) The Contractor shall produce and update the Hazard Log. The hardcopy and softcopy (in Microsoft® Excel format) shall be submitted to the Engineer for Approval. References to relevant information / analysis items shall be included in the hazard log to describe the source(s) of the hazards identified.

2.4.3. Risk Assessment

- a) This assessment marks each identified risk with Risk Levels (HIGH, MODERATE or LOW) based on an assessment of its Frequency and Consequence, and proposes the corresponding actions required.
- b) Risk Matrix (Frequency and Consequence)
 - i. To ensure that a consistent approach shall be maintained, the criteria in **Table 10.1 – Frequency Levels** and **Table 10.2 – Consequence Levels** shall be used to assess the Frequency and Consequence of risks. The risk matrix is provided in **Table 10.3 – Risk Matrix**. In addition, a collective team approach involving the relevant subject matter experts shall be adopted in this process.

Table 2.1:Frequency Levels

Rank	Category	Cost Overrun	Progress Delay	Probability of occurrence
5	Frequent	> 70%	> 70%	≥ 10 incidents in a year
4	Occasional	≤ 70%	≤ 70%	2-10 incidents within a year
3	Remote	≤ 50%	≤ 50%	1 incident within a year
2	Improbable	≤ 30%	≤ 30%	1 incident within 5 years
1	Extremely improbable	≤ 10%	≤ 10%	< 1 incident in 5 years

Table 0.2:Consequence Levels

Rank	Consequence Category	Impact on Safety	Impact on Environment	Impact on Time (Delay)	Service (System Disruption)	Service (Line Disruption)	Service (Station Disruption)	Percentage of Cost Overrun (%)	Impact on Image/ Reputation
A	Catastrophic	Equipment destroyed Multiple deaths	Massive effect	≥ 6 months	> 1 day	> 1 week	> 1 month	> 15	Incident in media involving public safety or massive reaction
B	Hazardous	A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely Serious injury or a single death Major equipment damage	Major effect	3 to < 6 months	≤ 1 day	≤ 1 week	≤ 1 month	≤ 15	Regulatory prosecution or lawsuit
C	Major	A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of an increase in workload or as a result of conditions impairing their efficiency Serious incident Minor Injury to person(s)	Contained effect	1 to < 3 months	≤ 1 hour	≤ 1 day	≤ 1 week	≤ 5	Incident in media
D	Minor	Nuisance Operating limitations Use of emergency procedures Minor incident (without injury)	Minor effect	5 to 28 days	≤ 20 mins	≤ 3 hours	≤ 1 day	≤ 1	Airline / Stakeholder formal complaints > 2 or regulatory warning
E	Negligible	Few consequences	No effect	< 5 days	-	≤ 1 hour	≤ 1 hour	≤ 0.1	Airline / Stakeholder formal complaints ≤ 2

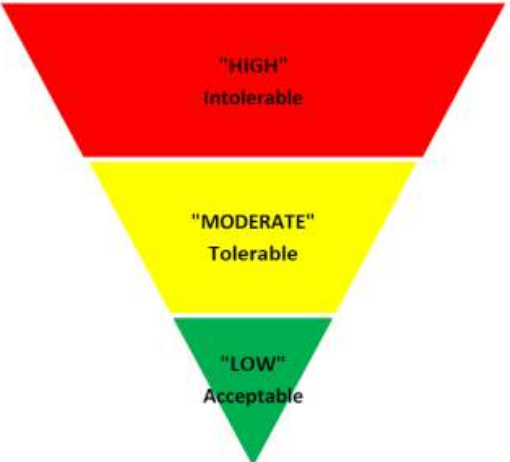
Table 0.3: Risk Matrix

Frequency		Consequence				
		CatastrophicA	HazardousB	MajorC	MinorD	NegligibleE
Frequent	5	5A	5B	5C	5D	5E
Occasional	4	4A	4B	4C	4D	4E
Remote	3	3A	3B	3C	3D	3E
Improbable	2	2A	2B	2C	2D	2E
Extremely improbable	1	1A	1B	1C	1D	1E

ii. The Contractor shall adopt a 3-level of risk approach used by the Engineer, as shown in Table 10.4 – Risk Tolerability. The three levels of risk shall be:

- High Risk - Unacceptable under the existing circumstances;
- Moderate Risk - Acceptable based on risk mitigation, provided it has been reduced to a level which is “As Low As Reasonably Practicable (ALARP); and
- Low Risk – Acceptable

Table 0.4: Risk Tolerability

Tolerability Region	Assessed Risk Index	Criteria
 <p>"HIGH" intolerable</p>	<p>5A, 5B, 5C 4A, 4B 3A</p>	<p>Unacceptable under the existing circumstances</p>
<p>"MODERATE" Tolerable</p>	<p>5D, 5E 4C, 4D, 4E 3B, 3C, 3D 2A, 2B, 2C</p>	<p>Acceptable based on risk mitigation. It may require management decision</p>
<p>"LOW" Acceptable</p>	<p>3E 2D, 2E 1B, 1C, 1D, 1E</p>	<p>Acceptable</p>

c) Risk Mitigation/Treatment

- i. When a risk has been identified as unacceptable, appropriate control measures have to put in place to eliminate the risk or reduce the risk to an acceptable level.
- ii. Normally by applying one or a combination of several safety measures, risks can be reduced to an acceptable level. Such reduction can be applied to the frequency and/or consequence of a risk. The hierarchy of risk mitigation measures includes:
 - Risk elimination: The most satisfactory method of dealing with a risk is to eliminate it i.e. to stop a dangerous activity or to remove a dangerous equipment from site;
 - Risk substitution: This involves substituting a dangerous process or equipment with one that is not as dangerous;
 - Engineering controls: Separate or isolate the risk from people or facility at risk by using hardware such as guards, barriers, and other installations;
 - Administrative controls: Software issues such as safe working procedures, safety systems, training, permit-to-work etc.; and
 - Others:
 - With Establishment of appropriate risk mitigation measures, reference is made to those measures stipulated in the relevant legislations, national standards, codes of practice, etc.
 - In response to the identified risks and analysis of consequences arising from such risks, specific requirements, operating regulations and implementation measures may be imposed which are reviewed to ensure relevance and appropriateness.
 - The identified risks, their assessment results and recommended treatment actions are recorded and tracked for closure in the Hazard Log.
 - The Hazard Log is a living document due to the constantly changing environment and situation. Therefore, reviews shall be conducted timely to identify those changes and subsequently modify the risk treatment to reflect these changes in the Hazard Log.

d) Risk Monitoring and Review

- i. Risk has a dynamic context resulting from constantly changing external and internal environments. For this reason, monitoring and reviewing of the performance of its risk management process, and of changes in the internal and external environments that might affect them, are necessary.

It is necessary to monitor not only the risk, but also the effectiveness of the associated risk treatments and the management processes for controlling their implementation.

2.4.4. Design Safety Review (DSR)

- a) Design Safety Review (DSR) meetings shall be convened to review all design, in particular design changes, and SA/RAM activities to ensure hazard are comprehensively identified, within the scope of the Contract. The DSR meetings shall be held quarterly, or when there is any key design change. The Engineer may participate in the DSR from time to time.
- b) The Contractor shall review all analyses and Hazard Log during the DSR in order to ensure that the results have been incorporated in the current design, and the recommended design modifications do not introduce new hazard or increase the risk rating from the existing hazards. The Contractor shall review and identify if there is any design deficiencies and provide recommendations to reduce any potential risks.
- c) The Contractor shall submit the meeting records and updated Hazard Log after each DSR meeting as evidence to the Engineer, and ensure actions proposed at the meeting shall be taken.

2.4.5. Deterministic Safety Assessment (DSA)

- a) A Deterministic Safety Assessment (DSA) shall be conducted to ensure that relevant safety requirements and principles have been designed in and subsequently built and tested by the Contractor.
- b) These requirements and principles shall include those from the contract requirements and relevant legislations, codes of practice, and standards. These requirements shall be checked for normal, degraded and emergency operation of the railway system as appropriate.
- c) Cross reference to the documentary evidence shall be quoted in the checklist to prove compliance and completion. Examples of evidence

may include design documents, drawings, calculations, test reports, site verification, formal certificates, and others.

- d) A summary of compliance status, together with the completed checklist, shall be provided respectively by the Contractor in the design and construction stages. Any non-compliances shall be fully justified to the Engineer for review and approval.
- e) The results of the DSA shall be documented in the template as stipulated. The Contractor shall submit the hard copy and soft copy (in Microsoft® Excel format) to the Engineer for Approval prior to the completion of the design stage (for Contractor's design or alternative design, if any) and construction stage.

2.4.6. Safety Critical Item (SCI)

- a) A Safety Critical Item (SCI) is an engineering item whose integrity is critical to the safe operation of the railway. Its failure to perform its functions could lead to an accident involving loss of life or injury to the staff, contractors, passengers or the public. It requires stringent maintenance controls to ensure that it continues to satisfactorily perform the required safety functions.
- b) The methodology for the identification of SCIs shall be submitted to the Engineer for Approval prior to commencement of the activity.

2.4.7. Safety Integrity Levels (SIL)

- a) Unless specific requirements have been identified elsewhere in the Employers Requirements, the Contractor shall propose the SILs and allocation, together with methodology and shall be approved by the Engineer in the early in the project.

2.5. Reliability, Availability, Maintainability (RAM) Requirements

2.5.1. RAM Targets and Analysis

- a) The Contractor shall propose appropriate RAM targets (including for system and equipment) for allocated and predicted the railway system based on best industry practices and to be approved by the Engineer before project commencement. The Service Availability of the railway system shall be better than 99.98% (assuming service delay of less than 10 minutes) and reliability of 99.99999%.

- b) The Contractor shall clearly define the terms (e.g. definition of failure) and conditions for the RAM targets.
- c) In order to demonstrate that the RAM has been taken into consideration during the design process, the Contractor shall undertake RAM analysis using verifiable field data from original product suppliers' RAM data or relevant RAM prediction analyses based on verifiable data / international standards (e.g. EN 60812 (Analysis techniques for system reliability – Procedure for failure mode and effects analysis)) for the whole railway systems.
- d) The RAM analyses shall be conducted at equipment level as minimum, and shall be extended to a lower level upon request by the Engineer. The methodology (e.g. using reliability block diagram) shall be specified in the System Assurance and Risk Management Plan (SARMP) and Approved by the Engineer.
- e) The Contractor shall list the sources for the RAM failure rate data used in the RAM analysis.
- f) The Contractor shall submit all the response and repair times data to the Engineer for review without objection.
- g) A RAM Allocation Report shall be submitted to the Engineer for review without objection to demonstrate the allocated RAM targets for each particular subsystem. The Contractor shall apportion their RAM targets contractually to any subcontractors or suppliers. The allocation methodology shall be reviewed without objection by the Engineer.
- h) A RAM Analysis & Prediction Report shall be submitted to the Engineer for review without objection to demonstrate the predicted RAM performance meets the RAM performance targets. This shall include the appropriate reliability block diagrams. In case the RAM targets cannot be achieved, the Contractor shall provide sufficient substantiation to justify the non-conformance.

2.5.2. Reliability Development / Growth Testing

- a) It is a fundamental requirement that the delivered system shall meet the RAM requirements stipulated in this section on the first day of revenue service.
- b) To ensure achievement of the reliability target on the first day of revenue service operations, the Contractor shall conduct Reliability Growth Testing during the design development stage in order to disclose the

design deficiencies and defects; and to predict the reliability performance at the commencement of the Defects Liability Period (DLP). The intention is to identify any weaknesses, incorporate corrective actions, and verify their effectiveness prior to full scale production.

- c) The prototype shall be subject to reliability test to identify any premature failure and quality defects. The Contractor shall submit the Reliability Growth Testing Report detailing the methodology and the duration of the reliability test, which shall include the accelerated life test, environment stress screening or/and electromagnetic test, where appropriate, to the Engineer for review without objection before the commencement of on-site testing.

2.6. System Assurance Demonstration

2.6.1. System Assurance Demonstration Plan (SADP)

- a) During DLP, the performance of the works undertaken by the Contractor shall be monitored to demonstrate compliance with the RAM requirements as specified in this section.
- b) The Contractor shall submit a System Assurance Demonstration Plan (SADP) at least 90 Days before the programmed commencement of the DLP. The SADP shall include but be not limited to the following: organization, responsibility and key personnel of the system assurance demonstration and a programme summarizing the key activities. The demonstration of compliance with the RAM Targets shall be achieved within the DLP.
- c) The SADP shall describe the Failure Recording and Corrective Action System (FRACAS) and the procedures for collection, analysis, correction and documentation of failures. FRACAS shall be used to ensure all incidents are accurately and consistently categorized as to cause, significance, frequency and chargeability. The FRACAS shall log data on integrated tests and trials, failures, performance and maintenance from the start of integrated testing up to and including the DLP.
- d) Failure to Achieve RAM Targets.

- i. Should any RAM targets not be achieved, the Contractor shall be subject to the Engineer's review without objection, take whatever action deemed necessary to meet the requirements.
- ii. In the event that any RAM target is not achieved at the end of the DLP, then the demonstration of the achievement of the targets shall be extended at least 1 Month and repeated at Monthly intervals, based upon the preceding 12 Months, until the requirement is achieved.
- iii. Failure of any one or more sub-systems to achieve the level of functional reliability shall be considered as a defect.

2.6.2. System Assurance Demonstration Report (SADR)

- a) The Contractor shall submit a System Assurance Demonstration Report (SADR) within 1 Month after the completion of the DLP. Interim results shall be provided to the Engineer monthly during the DLP. The report shall provide evidence that the respective RAM targets have been achieved and shall include any supporting information and calculations.
- b) The Contractor shall describe the details of each failure case in the SADR and interim reports. The details of each failure case shall at least include the following: time, date, duration of train service disruption, response time, recovery time, cause of incident, symptom, alarm, remedial action taken etc.

2.7. Audit

2.7.1. The Contractor shall conduct System Assurance Internal Audits periodically during the life of the Contract.

2.7.2. Periodically during the life of the Contract, the Engineer will conduct compliance audits of the Contractor's System Assurance requirements. Not less than 14 Days' notice will be given by the Engineer of a proposed audit. During the audits, the Contractor shall provide all necessary access, assistance and facilities to enable the Engineer to verify that the System Assurance and Risk Management Plan is being properly and fully implemented. The Contractor shall assign suitably qualified staff to assist the Engineer during the audits.

2.7.3. The Engineer will take sample assessment to verify the actual implementation of the risk mitigation measures (e.g. referenced document, analyses results,

demonstration of functions, etc.) as recorded on the Hazard Log during the audit.

- 2.7.4. The Engineer will take sample assessment to verify the corrective and preventative actions required and the dates by which these actions shall be completed as proposed by the Contractor. The Contractor shall provide evidence either in verification audits carried out by the Engineer, or by submission of further documents to demonstrate that all agreed corrective and preventive actions have been satisfactorily completed by the agreed dates.

2.8. Safety Cases

- 2.8.1. The Contractor shall document its proof of Safety through Safety Cases that confirm the safety readiness and safe operation of the Systems developed and describe how the Contractor's Systems achieve the safety and RAM requirements set out in the Contract.
- 2.8.2. The Safety Cases shall be met the requirement according to the latest version, which shall include, as a minimum, the following Safety Cases:
- a) Design Safety Cases
 - b) Final Safety Cases
- 2.8.3. The Contractor shall submit the Design Safety Case before the completion of detailed design stage. The Final Safety Case shall be submitted before the commencement of Commissioning Runs. The Contractor shall include the Safety Cases submission schedule in the System Assurance and Risk Management Plan for review without objection by the Engineer.
- 2.8.4. Within 90 Days after the Date for Commencement of the Works, the Contractor shall submit the Table of Contents of the Design Safety Case for the Engineer's review without objection before the formal Design Safety Case submission.

2.9. System Assurance Deliverables

- 2.9.1. **Table 10.5 – System Assurance Deliverables** below specifies the analyses and activities to be undertaken during the different stages of the Works.

Table 0.5: System Assurance Deliverables

Deliverables	PS Reference	Design	Manufacturing Construction and Testing & Commissioning	DLP
System Assurance and Risk Management Plan	10.3	O	U	
Hazard Log	10.4.2	O	U	U
Design Safety Review Meeting Records	10.4.4	O	O	
Deterministic Safety Assessment Report	10.4.5	O	U	
Fault Tree Analysis Record	10.4.6	O		
Safety Critical Item Identification Record	10.4.7	O	U	
RAM Allocation Report	10.5.1 (g)	O		
RAM Analysis & Prediction Report	10.5.1 (h)	O	U	
Design Safety Case	10.8.2(a)	O		
Final Safety Cases	10.8.2(b)		O	
Reliability Growth Testing Report	10.5.3		O	
System Assurance Demonstration Plan	10.6.1		O	
System Assurance Demonstration Report	10.6.2			O

Legend: O – Output From Phase

U – Updated During Phase

2.10. System and Safety Acceptance

- 2.10.1. All the proper documents shall be provided to the appropriate internal and external authorities for approval through the proper process before testing and commissioning.
- 2.10.2. The process, approval documents required and authorities shall be agreed with the Engineer early in the Project.

3. Maintenance Obligations

3.1. Protection of Work

3.1.1. Finished work shall be protected from damage that could arise from the execution of adjacent work according to procedures and methods to be submitted for the approval of the Engineer throughout the Contract until issue of the Taking-Over Certificate.

3.2. Maintenance of Work

3.2.1. The Contractor shall maintain the finished works according to the Operation and Maintenance documentation to be submitted for the approval of the Engineer throughout the Contract until issue of the Taking-Over Certificate. This includes both preventative and corrective maintenance measures to ensure that the all equipment and materials are maintained properly both before and during the Trial Running.

4. Testing and Commissioning

4.1. General

4.1.1. The Contractor shall perform all testing and commissioning activities to satisfactorily demonstrate the performance of the Works and shall include:

- a) provision of all labour and experienced supervision to perform all inspections and tests required by the Management Plans covering testing and commissioning
- b) provision of all required testing and specialised equipment and materials including consumables required to support the testing and commissioning activities

4.1.2. The testing and commissioning activities shall be identified by, and managed according to, a series of documents to be submitted for the acceptance of the Engineer. These documents include Testing and Commissioning Plan, Factory Acceptance Test Plans, Site Inspection and Testing Plans, Integrated Testing

Plan, Test and Trial Operations Plan and any other plans required to comprehensively cover the testing and commissioning activities.

- 4.1.3. All plans detailing tests and inspections at any stage shall include full details / schedule of the observations and test results to be taken at site together with the objective and dependencies on previous and successive tests as relevant. The plans will also cross reference the Verification and Validation Plan to facilitate the integration with and traceability of their contribution to the Requirements Management Process. The plans shall be submitted with the proforma of result sheets that include the pass / fail criteria of each test / inspection item.
- 4.1.4. Completed test result sheets shall be signed by all parties involved in the testing as well as the Engineer if present however this shall indicate only that the test has been carried out and not indicate any acceptance that the test or inspection was carried out correctly or that the results are accepted as passed. Test and inspection result sheets shall be submitted to the Engineer irrespective of whether the test / inspection was passed or not and shall be subject in respect of whether the results satisfactorily demonstrate that the test / inspection was successful.
- 4.1.5. All test equipment and instrumentation shall be subject to calibration test under a formal document controlled calibration scheme, and signed calibration certificates shall be kept in an orderly and controlled manner by the Contractor for production upon reasonable request by the Engineer. The availability of properly certified test equipment and tools must form part of the Contractor's readiness preparations prior to commencement of the tests
- 4.1.6. The Contractor shall correct all faults found during testing, and shall arrange for the relevant tests to be repeated once the failure has been rectified. Where changes are made to equipment that has already been tested, regression testing shall be undertaken to ensure that the modification does not affect the performance or functionality previously demonstrated in earlier tests.

4.2. Testing and Commissioning Plan

- 4.2.1. The Testing and Commissioning Plan shall cover the whole of the activities on and off site throughout the duration of the project and will identify how the various stages are linked together including how the testing and commissioning of individual elements culminates over the project lifecycle to the Trial Running to demonstrate the integrated system runs according to the technical and services requirements.

- 4.2.2. The Testing and Commissioning Plan will identify in detail the organisation charts and roles / responsibilities of all staff that will participate in the testing and commissioning stage. It shall also include a fault log that shall be maintained throughout each series of tests.
- 4.2.3. Every failure identified in tests and inspections shall be recorded in the log including specific references to each item of equipment / assembly which failed.
- 4.2.4. A report shall be prepared with specific content for hardware and software faults to be identified in the Testing and Commissioning Plan.
- 4.2.5. Each fault shall be assigned a category according to the ability or otherwise to continue testing. This will range from a failure that is considered a normal event within acceptable limits to a major fault affecting the functionality of the system or sub-system and for which the fault must be rectified before recommencing testing.
- 4.2.6. Full details of the actions taken to rectify the failure will be recorded in the log together with the references of the inspection and test records that subsequently demonstrated the close out of the failure.

4.3. Factory Acceptance Testing

- 4.3.1. The Factory Acceptance Test Plans shall include requirements and arrangements for Type Tests, First Article Inspection and Routing Factory Tests and include the definitions and determination of each type of testing to be applied to each item of the works. It shall also, together with the Integrated Testing Plans, identify how the various sub-systems elements shall be brought together for integrated testing at a single factory location to demonstrate satisfactory integration before equipment of these subsystems is shipped to and installed at site.
- 4.3.2. Integrated factory testing shall be undertaken using equipment and assemblies of the same configuration, interconnection and manufacture as that planned to be used at site and shall include demonstration of the correct functionality and performance of wayside, control centre and train borne integrated sub-systems.
- 4.3.3. The Contractor shall submit the list of items to be subjected to Type Tests and First Article Inspections at least 2 months before the first test is due.
- 4.3.4. The Contractor shall also provide 15 calendar days' notice of all tests at the project site including all latest drawings, inspection and test procedures,

specifications and quality documentation required for adequate inspection of the equipment under inspection. For testing conducted outside of Luzon islands of the Philippines, 28 calendar days' notice shall be given.

4.4. Site Inspection and Test Plans

- 4.4.1. The Site Inspection and Test Plans shall detail and explain how the Contractor will plan, perform and document all tests and inspections that will be conducted to verify and validate the Works on Site.
- 4.4.2. The combined plans shall cover all the final stage inspection and static testing of components assemblies and installations before the start of Partial Integration Tests.
- 4.4.3. Each plan shall identify how it relates to the overall sequence of construction and Installation and will identify all Quality Hold and Quality Control Points.

4.5. Integrated Test Plans

- 4.5.1. The Integrated Testing Plans shall detail and explain how the Contractor will plan, perform and document both the Partial and Integration/System Acceptance tests.
- 4.5.2. Partial Acceptance Tests are the performance of functional tests of sections, areas, or stages of the system. On satisfactory completion of the Partial Acceptance Tests, the tested items will be considered available for Systems Acceptance Testing.
- 4.5.3. System Acceptance Tests are the tests undertaken to demonstrate that the combined sub-systems functioning as the overall system are capable of functioning in accordance with the specified requirements in all respects and shall include a period of Test Running. They shall include tests of all functional and performance requirements for the system, tests under failure and degraded mode conditions including the continuity of service from normal to degraded modes and restoration of normal mode from degraded or failure conditions and also the implementation of planned emergency procedures.
- 4.5.4. The scheduling for Integrated Testing shall include contingency plans to be implemented if testing proceeds more slowly than anticipated or if defects are discovered that necessitate rectification and subsequent repeat testing, etc.as well as any regression testing due to rectification works on software. Records

produced during Integrated Testing shall be adequate to enable the system or its respective part to be commissioned and to meet the requirements of the licensing authority or statutory body.

- 4.5.5. The System Acceptance Tests may commence before remote operation control centre capability is fully functional, however, the system must be satisfactorily tested from the operations control centre before the System Acceptance Tests can be considered to be completed.
- 4.5.6. The Partial Acceptance Tests and System Acceptance Tests are part of the Tests on Completion to be performed in order to achieve Employer's Taking-Over of the Works and demonstrate the full compatibility between all interfacing systems.
- 4.5.7. On satisfactory completion of the System Acceptance Tests, the tested items will be considered available for Trial Running.

4.6. Trial Running

- 4.6.1. The objectives of the Trial Running are:
 - a) To ensure the overall compatibility of the performance among all the interfacing systems
 - b) To demonstrate the full functioning of the railway prior to handing over to the Operator to commence trial operation
- 4.6.2. Prior to commencement of Trial Running the system acceptance tests of the individual systems and all the integrated tests between interfacing systems must have been completed and results of the tests are fully certified.
- 4.6.3. Trial Running process shall consist of the following stages:
 - a) Planning of the trial running including scope definition, fixing the acceptance criteria, appointment of test-in-charge and discipline in charge, and scheduling of the trial running activities. The deliverable for this stage is the Trial Running plan.
 - b) Preparation of the Test and Trail Running Plan including formulation of the trial running procedures, grouping of the trial running activities into appropriate packages, and confirmation of the operator and subcontractor support for each of the trial running packages. The deliverable for this stage is the Trial Running manual which will guide the execution of the Trial Running.

- c) Execution of Trial Running including review of Trial Running readiness, execution of the Trial Running packages, and reporting of the outcomes of the Trial Running packages. The deliverable for this stage is the Trial Running Report.
- d) Conduct system performance test to demonstrate that the railway as built is capable of delivering the service level and performance as specified in the Contract. The test will be carried out during the Trial Running for a consecutive period for a sufficient period at full operating hours and capacity with trains operating according to a timetable to demonstrate that the journey time, headway, service punctuality and trains availability as specified in the Contract have been achieved.
- e) Closing out of the trial running including tracking of outstanding items and rectification of any deficiencies arising during the trial running. The deliverable of this stage is the final trial running report duly certified for submission to the statutory authority as part of the Safety Case supporting the readiness for commencing operation.

5. Monitoring the Works and Independent Consultants Inspections

- 5.1.1. The Contractor shall ensure that management plans include all necessary processes and resources to ensure successful and safe implementation from design to start of operations through to the end of the Contract including all on and off-site activities.
- 5.1.2. The Contractor shall also facilitate all reasonable requirements, access and attendance for monitoring of the works by Engineer for independent monitoring, auditing and verification of the implementation. This shall include provision of all reasonably requested plans, reports, statistics and information as well as the provision of access to site including any necessary safety inductions, safety officers required to accompany personnel at the location of the implementation works.

6. Operations and Maintenance Manuals, Training and As-Built Drawings

6.1. Operation and Maintenance Manuals

6.1.1. General Approach

The Contractor shall provide all the information necessary to support the Employer to effectively and efficiently operate and maintain all the systems of the SLHP. Such information shall be made available well before commencement of the training of the staffs of the Employer on the operation and maintenance of the SLHP.

6.1.2. O&M Manual Delivery Plan

The Contractor shall submit a delivery plan for the O&M manuals consisting of the following content:

- a) A list of the system operation manuals and system maintenance manuals to be prepared together with the content page of each of the manuals
- b) Schedules for the submission of the system operation manuals, system maintenance manuals, as-built drawings and design information. Such schedules shall be well coordinated with the training program.

6.1.3. Deliverables

The deliverables include:

- a) System operation manual for each of the systems
- b) System maintenance manual for each of the systems
- c) Full set of as-built drawings for each of the systems and the interfaces between the systems
- d) Design information to support the future upgrading or replacement of the systems
- e) Prepare and submit Civil and Structural O&M manuals including drainage works
- f) Prepare and submit Architectural O&M manuals
- g) Prepare and submit Landscaping O&M manuals
- h) Prepare and submit MEP O&M manuals

6.1.4. System Operations Manuals

The system operation manual for each of the systems shall provide all the information necessary for the operators to efficiently and effectively operate the system. Each system operation manual shall include the following content:

- a) Description of the functionalities, design parameters, system architecture, key operational features and locations of the equipment.
- b) Appropriate set of as-built drawings:
- c) Start-up instructions, procedures and precautions;
- d) Operating instructions, procedures and precautions;
- e) Resetting instructions, procedures and precautions;
- f) Shutdown instructions, procedures and precautions.

6.1.5. System Maintenance Manuals

The system maintenance manual for each of the systems shall provide all the information necessary for the maintenance staffs of the Employer to effectively and efficiently maintain the system. Each system maintenance manual shall include the following content:

- a) Description of the functionalities, design parameters, system architecture, key operational features and locations of the equipment;
- b) Preventive maintenance schedules, procedures and work instructions;

- c) Corrective maintenance procedures and work instructions;
- d) Overhaul schedules, procedures and work instructions;
- e) Condition monitoring facilities (if any) and condition-based maintenance procedures and work instructions;
- f) Dismantling and assembly procedures and work instructions;
- g) Testing requirements and procedures;
- h) Engineering standards for maintenance;
- i) Appropriate set of as-built drawings and design information;
- j) Special tools and test rigs;
- k) List of insurance, maintenance spares including illustrated parts catalogue.

6.2. Operations and Maintenance Training

6.2.1. Training Plan

The training plan shall provide a programme of courses to facilitate training of the Employer's personnel on the operation and maintenance of systems and rolling stocks of the railway. The training plan shall include the following content for each of the courses:

- a) Training objectives;
- b) The sequence of learning activities;
- c) An outline of the contents;
- d) The profile of the trainer;
- e) Learning strategies to be used;
- f) Methods and criteria for evaluating performance, including an objective grading system to report progress of trainees during the training;
- g) Location for each training activity;
- h) Resources required, such as equipment, workshop space, multi-media facilities, etc.;
- i) A programme showing the approximate hours required for each training course, including classroom training, together with a breakdown of the hours necessary for each main subject.

6.2.2. Training Materials

- a) The Contractor shall provide materials to support each course in the training program, including trainers guides, training aids and simulators, demonstration units, trainee workbooks, workshop guides, and operator and maintenance manuals; and special tools for testing and maintenance.
- b) All training materials including soft copies and related software shall become the property of the Employer. The trainer's guides and trainee workbooks shall be submitted as camera-ready copy in a form that allows easy reproduction. Any view graphs used in training shall be supplied along with reproducible copy. Master copies of slides and other audio-visual materials also shall be provided for reproduction.
- c) The Contractor shall provide a trainer's guide for each training course. The guides shall include course agenda; course objectives; procedures for managing training sessions; detailed lesson plans, with key learning points for each session, including outlined presentations and discussion guides; training aids and job aids; pre and post-tests with answers and objective marking scheme; criteria and methodology for measuring performance in the classroom and in workshop/field; instructions for using any audio-visual support, mock-ups, and computer based learning facilities; and detailed instruction for managing any on-the-job training.

6.2.3. Training Courses

- a) The training courses shall comprise theory and practical sessions and shall be completed not later than 14 days before commissioning of the relevant systems by the Contractor's personnel.
- b) The following types of courses shall be organized for the staff of the Employer:
 - i. Operation of the systems;
 - ii. Preventive and corrective maintenance of the systems;
 - iii. Workshop or major maintenance of the systems;
 - iv. Software of the systems;
 - v. Inventory management of the systems and rolling stocks.

6.2.4. Training Report

- a) A training report for each of the courses shall be prepared after completion of the course has been conducted and the content shall include:
 - i. Objective of the course;
 - ii. List of trainees attending the course;
 - iii. Post training assessment criteria for the trainees;
 - iv. Post training assessment results of the trainees;
 - v. Lessons learnt and recommendations for improvements.

7. Spares

7.1. Spares List

- 7.1.1. The Contractor shall recommend a schedule of required spare parts specifying the quantities required for each item of spares, its description, part number, drawing number, lead time, shelf life and number of units required for the period of five years (beyond the Defect Liability Period), name and addresses of principal as well as secondary sources of supply of each spare.
- 7.1.2. As a minimum, the Contractor shall supply the spares required to maintain the service at the required reliability, availability and maintainability levels, including Mean Time Between Failures for the specified operation of the system.
- 7.1.3. This recommended schedule shall include all types of unit exchange and emergency spares, the Contractor shall also advise the recommended inventory with consideration for the lead time of the respective items.
- 7.1.4. The Contractor shall:
 - a) submit a list of spares down to LRU level required for the life of the Plant & equipment, manufactured items and system / sub-system;
 - b) Calculate the spares quantity in accordance with the reliability and availability date and the criticality of the equipment.
 - c) submit the calculations and spares list demonstrating the adequacy of the proposed list for review;
 - d) submit the proposed identification / inventory system for simple of spares for review;

- e) address all issues related to obsolescence of spares / components to meet the specified design life of all sub-systems;
- f) submit list of spare parts for ABWF & E&M Equipment and shall be agreed with the Employer;
- g) submit list of spares for Architectural Finishes, with an allowance of min 5% overall.

7.1.5. The Spares list shall:

- a) be grouped by plant & equipment, manufactured items and system / sub-system, test equipment and special tools as applicable for stocking identification;
- b) each have detailed description with drawing references and correlation with the maintenance manuals;
- c) for architectural finishes detailed product information such as product name, manufacturer, shelf life, including colour palette if applicable.
- d) be submitted to the Employer, together with a notice of a fact that any of the spares identified has a particular shelf life or special storage requirement, if any, as well as a proposal for necessary actions arising from such disposal or storage.

7.2. Testing of Spares

7.2.1. The Contractor shall ensure that all spares are correctly calibrated, tested and labelled prior to their delivery. Test certificates for each one of the equipment shall be enclosed with its package and numbered or indexed when they are submitted to the Employer.

8. Acceptance

8.1.1. After all the projects are completed, the quality inspection and acceptance of the project shall be organized by Engineer. The acceptance shall meet the corresponding requirements and procedures approved by Engineer.

Section VII. Drawings

Part One: Project Overview

Package I of South Long Haul Project (SLHP) is from Banlic Station to Daraga Station, is approximately 380km, linking Calamba city with Bicol International Airport. The project is located in the south section of Luzon, more than 50% of alignment makes use of existing ROW.

The main technical parameters applied in this project are as follows:

Gauge: 1435mm;

Design speed (commuter): 120-160km/h

Design speed (freight): 80-100km/h

Number of main lines: single track

Ruling grade: 20‰

Rolling stock (passenger train): DEMU

Rolling stock (freight train): Diesel locomotives

Type of traction: Diesel, reserve electric power

Signalling:ETCS-1(equivalent or higher level) technology

Effective length of receiving-departure track: 400m

Axle load: 25t.

Part Two: Documents of the Project

Basic design report.

Part Three: Drawings

1. Alignment
2. Profile
3. Typical Earthwork Site Design Drawings
4. Bridge Site Plan Drawings
5. Bridge General Layout Drawings
6. Overview of Signalling Equipment Layout Drawings
7. Figure of communication network Drawings

Section VIII. Bill of Quantities

CONTENT

BILL NO.	CHAPTER
	SUMMARY BILLS OF QUANTITIES
BILL 1	General Requirements
BILL 2	Earthworks
BILL 3	Subgrade
BILL 4	Bridges/Culverts And Roads
BILL 5	Track works
BILL 6	Communication Signal And Information
BILL 7	Electrical Systems
BILL 8	Buildings, Structures
BILL 9	Support Facilities
BILL 10	Environmental Systems
BILL 11	Temporary Facilities
BILL 12	Miscellaneous Costs

SUMMARY BILLS OF QUANTITIES		
NO.	DESCRIPTION	COSTS (PHP)
BILL 1	General Requirements	
BILL 2	Earthworks	
BILL 3	Subgrade	
BILL 4	Bridges/Culverts And Roads	
BILL 5	Track works	
BILL 6	Communication Signal And Information	
BILL 7	Electrical Systems	
BILL 8	Buildings, Structures	
BILL 9	Support Facilities	
BILL 10	Environmental Systems	
BILL 11	Temporary Facilities	
BILL 12	Miscellaneous Costs	
TOTAL AMOUNT		

BILL 1 General Requirements

Unit: PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 1	Employer's facilities on-site					
1.1	Brand new vehicles					
1.1.1	4×4, pickup, diesel engine, double cab, 4 doors, camper shell, including its operation and maintenance, drivers, fuel, lubricants, repairs, insurance, etc. for the duration of the Contract and ending until taking over the Section of the works.		21			
1.1.2	4×4, off-road, diesel engine, double cab, 4 doors, camper shell, including its operation and maintenance, drivers, fuel, lubricants, repairs, insurance, etc. for the duration of the Contract and ending until taking over the Section of the works.		14			
1.2	Office Buildings and living quarters					
1.2.1	Satellite Office Building – 250 sqm floor area, with internet and intranet network, with blinds on all windows, including its operation and maintenance, electricity, water, communications, 24-hour security, utility personnel, etc. for the duration of the Contract and ending until taking over the Section of the works.	sqm	1750			7 places
1.2.2	Main Living Quarters – 20 rooms, with blinds on all windows, including its operation and maintenance, electricity, water, communications, 24-hour security, utility personnel, etc. for the duration of the Contract and ending until taking over the Section of the works.	set	140			7 places
1.3	Furniture, Equipment, and Appliances for Offices Refer to Section VI. Employer's Requirements, Part One General Requirements, 4. Employer's Facilities on-site, 4.3 Furniture, Equipment, and Appliances for Offices for specific descriptions					The bidders shall prepare a BOQ for this item according to "4.3".
1.4	Furniture, Equipment, and Appliances for Living Quarters Refer to Section VI. Employer's Requirements, Part One General Requirements, 4. Employer's Facilities on-site, 4.4 Furniture, Equipment, and Appliances for Living Quarters for specific descriptions.					The bidders shall prepare a BOQ for this item according to "4.4".
1.5	Quarterly Supplies and Consumables for Offices Refer to Section VI. Employer's Requirements, Part One General Requirements, 4. Employer's Facilities on-site, 4.5 Quarterly Supplies and Consumables for Offices for specific descriptions					The bidders shall prepare a BOQ for this item according to "4.5".
1.6	Quarterly Supplies and Consumables for Living Quarters Refer to Section VI. Employer's Requirements, Part One General Requirements, 4.					The bidders shall prepare a BOQ

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
	Employer's Facilities on-site, 4.6 Quarterly Supplies and Consumables for Living Quarters for specific descriptions.					for this item according to "4.6".
1.7	Personal Protective Equipment Refer to Section VI. Employer's Requirements, Part One General Requirements, 4. Employer's Facilities on-site, 4.7 Personal Protective Equipment for specific descriptions.					The bidders shall prepare a BOQ for this item according to "4.7".
Grand Total : Bill 1						

BILL 2 Earthworks

Unit: PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 2	Earthworks					
2.1	Land for fill material taking soil	hectare				
2.2	Land for unsuitable soil disposal	hectare				
Grand Total : Bill 2						

BILL 3 Subgrade

Unit: PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 3	Subgrade					
3.1	Mainline earthworks (between stations) transportation and installation cost					
3.1.1	Earth excavation(spoil) and unsuitable soil disposal	cu.m				
3.1.2	Take soil as filling (cut and fill)	cu.m				
3.1.3	Borrow soil for fill	cu.m				
3.1.4	Removal of surface soil	sq.m				
3.2	Mainline earthworks in the stations and depots, transportation and installation cost					
3.2.1	Earth excavation(spoil) and unsuitable soil disposal	cu.m				

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
3.2.2	Borrow soil for fill	cu.m				
3.2.3	Removal of surface soil	sq.m				
3.3	Subgrade auxiliary works					
3.3.1	Retaining structure	cu.m				
3.3.2	Foundation filling	cu.m				
3.3.3	Cement mixing pile	m				
3.3.4	Gravel pile	m				
3.3.5	Foundation compaction	sq.m				
3.3.6	Green protection	sq.m				
3.3.7	Geotextile material	sq.m				
3.3.8	Slope protection and erosion protection	cu.m				
3.3.9	Protect of digging and discarding soil (stone) place	cu.m				
3.3.10	Greening of digging and discarding soil (stone) place	sq.m				
3.3.11	Drainage ditch	km				
3.3.12	Line protective fence	km				
3.3.13	Remove existing structure	cu.m				
Grand Total : Bill 3						

BILL 4 Bridges/Culverts and Roads

Unit: PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 4	Bridges/Culverts And Roads					
4.1	Concrete bridges for mainline track	m				
4.2	Steel bridges for mainline track	m				
4.3	Box culvert for mainline track	m				
4.4	Demolition of existing railway bridges	m				

4.5	Railway crossing infrastructures					
4.5.1	Road surface and subgrade	sq.m				
4.5.2	Road bridges	sq.m				
Grand Total : Bill 4						

BILL 5 Trackworks

Unit: PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 5	Trackworks					
5.1	Mainline trackworks					
5.1.1	Main track laying	track-laying km				
5.1.2	Bridge track laying	track-laying km				
5.1.3	Ballast bed laying	cu.m				
5.2	Station trackworks					
5.2.1	Main track laying	track-laying km				
5.2.2	Bridge track laying	track-laying km				
5.2.3	Ballast bed laying	cu.m				
5.3	Depot trackworks					
5.3.1	Main track laying	track-laying km				
5.3.2	Bridge track laying	track-laying km				
5.3.3	Ballast bed laying	cu.m				
5.4	Turnouts & Crossovers					
5.4.1	Track laying					
5.4.2	Turnout laying	set				
5.4.3	Ballast bed laying	cu.m				
5.5	Demolition of existing track	km				
5.6	Wayside					

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
5.6.1	Mainline signal signs & line signs,etc	km of maintrack				
5.6.2	Station & depot signal signs & line signs,etc	km of maintrack				
5.6.3	TP poles, warnings & monuments	km of maintrack				
Grand Total : Bill 5						

BILL 6 Communication Signal And Information

Unit: PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 6	Communication Signal And Information					
6.1	Communication	km of main track				
6.1.1	Communication Lines	km of main track				
6.1.2	Transmission System	km of main track				
6.1.3	Data Communication Network	km of main track				
6.1.4	Telephone Switching	km of main track				
6.1.5	Wired Dispatching Communication System	km of main track				
6.1.6	Mobile Communication System	km of main track				
6.1.7	Video Conferencing System	km of main track				
6.1.8	Private Emergency Communication	km of main track				
6.1.9	Clock Synchronization and Time Synchronization	km of main track				
6.1.10	Power Supply Equipment	km of main track				
6.1.11	Others	km of main track				
6.2	Signaling	km of main track				
6.2.1	CTC	no. of stations				
6.2.2	CBI+Block system	no. of stations				
6.2.3	ETCS-1	no. of stations				
6.2.4	Monitoring,Earthing for lightning protection and others	no. of stations				

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
6.3	Information	km of main track				
6.3.1	Passenger service management information system	km of main track				
6.3.2	Automatic fire alarm system	km of main track				
6.3.3	Electrical & Mechanical equipment monitoring system	km of main track				
6.3.4	Fire warning and office system related to signal building and traction substation	km of main track				
6.3.5	Relevant System Of OCC	km of main track				
6.3.6	Freight management system	km of main track				
6.4	Fare management system	no. of stations				
6.5	Disaster monitoring	km of main track				
Grand Total : Bill 6						

BILL 7 Electrical Systems

Unit :PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 7	Electrical Systems					
7.1	Substation					
7.1.1	Low voltage substation	no.				
7.1.2	Distribution substation	no.				
7.1.3	Pole mounted transformer	no.				
7.1.4	Box-type transformer substation	no.				
7.2	Transmission	km				
7.3	Outdoor lighting for station yard	no. of stations				
7.4	Electric telemechanical system	no. of stations				
7.5	Emergency power	no. of stations				
Grand Total : Bill 7						

BILL 8 Buildings, Structures**Unit :PHP**

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 8	Buildings, Structures					
8.1	Station building	sq.m				
8.2	Platform wall, platform surface, passageway,etc	no.				
8.3	Depot building	sq.m				
8.4	Maintenance shed building	sq.m				
8.5	Building mechanical equipment (VAC, fire protection, water supply, plumbing and sanitary lines, etc.)	Lump Sum				
8.6	Operation support building	sq.m				
Grand Total : Bill 8						

BILL 9 Support Facilities**Unit :PHP**

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 9	Support Facilities					
9.1	Water supply and drainage to existing utility lines	no. of stations				
9.2	Facilities for locomotive (HSR wreck crane,tool vehicle, rescue instrument,etc)	Lump Sum				
9.3	Facilities for DMU					
9.3.1	DMU servicing equipment, Driving simulator,crew all-in-one machine, etc	Lump Sum				
9.3.2	Wheel set fault dynamic detection system, Temporary repair and Wheel repair facility, DMU Static debugging facility, etc	Lump Sum				
9.3.3	DMU operation and inspection facility	set				
9.4	Facilities for infrastructure Maintenance					
9.4.1	Dynamic detection equipment	set				
9.4.2	Large track maintenance machines	set				
9.4.3	Repair and maintenance equipment	set				

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
Grand Total : Bill 9						

BILL 10 Environmental Systems Unit :PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 10	Environmental Systems					
10.1	Sound barrier on subgrade	sq.m				
10.2	Sound barrier on bridge	sq.m				
Grand Total : Bill 10						

BILL 11 Temporary Facilities Unit : PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 11	Temporary Facilities					
11.1	Access/Service road	km				
11.2	Material base	no.				
11.3	Centralized concrete mixing plant	no.				
11.4	Concrete component prefabricate yard	no.				
11.5	Track-Laying base and girder yard	no.				
11.6	Railway ballast storage yard	no.				
Grand Total : Bill 11						

BILL 12 Miscellaneous Costs Unit :PHP

Item No.	Description	Unit	Quantity	Unit Rate	Amount	Remark
BILL 12	Miscellaneous Costs					
12.1	Survey and design cost for detailed and construction design	Lump Sum				
12.2	Employee-training costs	Lump Sum				

12.3	Test operation costs	Lump Sum				
	Grand Total : Bill 12					

Section IX. Bidding Forms

Section IX-A.

Bid Form

Date: _____

To: *Department of Transportation*

Address: *[insert address]*

We, the undersigned, declare that:

- (a) We have examined and have no reservation to the Bidding Documents, including Addenda, for the Contract for Design and Build of South Long Haul Project;
- (b) We offer to execute the Works for this Contract in accordance with the Bid; the Bid Data Sheet accompanying this Bid; and the General Conditions of Contract, the Particular Conditions, and the Employer's Requirements stated in the Bidding Documents;

The total price of our Bid, excluding any discounts offered below is: *[insert information]*;

The discounts offered and the methodology for their application are: *[insert information]*;

- (c) Our Bid shall be valid for a period of *120* days from the date fixed for the Bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) If our Bid is accepted, we commit to obtain a Performance Security in the amount of *[insert percentage amount]* percent of the Contract Price for the due performance of the Contract;
- (e) Our firm, including any subcontractors or suppliers for any part of the Contract, have nationalities from the following eligible countries: *[insert information]*;
- (f) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Bidding Documents;

- (g) Our firm, its affiliates or subsidiaries, including any subcontractors or suppliers for any part of the Contract, has not been declared ineligible by the Funding Source;
- (h) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal Contract is prepared and executed; and
- (i) We understand that you are not bound to accept the Lowest Calculated Bid or any other Bid that you may receive.
- (j) We likewise certify/confirm that the undersigned, is the duly authorized representative of the bidder, and granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for the South Long Haul Project of the Department of Transportation.
- (k) We acknowledge that failure to sign each and every page of this Bid Form, including the Priced Schedules, shall be a ground for the rejection of our bid.

Name: _____

In the capacity of: _____

Signed: _____

Duly authorized to sign the Bid for and on behalf of: _____

Date:

Section IX -B.

Priced Activity and Sub-activity Schedules

The total of the prices of the activities (herein after also referred to as Schedule of Prices) in the Activity Schedule (herein after also referred to as Schedule of Work Items) is the Bidder's offer to complete the works on a "single responsibility" basis.

The Schedule of Prices comprises the following sections and the Schedule of Work Items are subdivided into Sub-activity Schedules as defined as Milestones (MS):

Section A – Preambles

Section B – Daywork Price Schedule and Schedule of Rates

Section C – Schedule of Work Items

Section D – Specified Provisional Sums

Section E – Grand Summary

The cost of any activity or sub-activity that the Bidder may have omitted is deemed to be included in the price of other activities or sub-activities in the Priced Activity (Schedule of Prices) and Sub-activity Schedules (Milestones) and will not be paid for separately by the Employer.

The priced activity and sub activity schedules provided by the Bidder will be used for bid evaluation. These schedules together with the work program serve as a basis for estimating the payments in the Schedule of Payments.

SECTION A - PREAMBLES

Part 1 - General Notes

1. The Schedule of Prices comprises the following sections: -
Section A – Preambles
Section B – Daywork Price Schedule and Schedule of Rates
Section C – Schedule of Work Items
Section D – Specified Provisional Sums
Section E – Grand Summary
2. Section A -Preambles: It is divided into 2 parts. Part 1- General Notes

describe and explain the various parts of the Schedule of Prices and their inter-relationship. Part 2 - General Preambles apply to the work items in the Schedule of Prices.

3. Section B – Daywork Schedule and Provisional Sums: All items in Section B are provisional only and shall only be executed in accordance with the Engineer’s instruction under the Conditions of Contract. The Daywork Schedule and Provisional Sums are included under Section C. The total value of this Section shall be carried forward to Section E – Grand Summary.

4. Section C – Schedule of Work Items:
 - (i) The Works, including the design thereof, are divided into several Schedules, each of which represents major items or series of inter-related items associated with the Works. The Schedules are named according to their general scope of works.

 - (ii) The sum of the prices of the items in each Schedule represents the total value of the respective Schedule. All such values of Schedules shall be carried forward to Section E - Grand Summary.

 - (iii) The scope and extent of the Works shall be ascertained by reference to the Contract documents as a whole and shall not be limited in any manner whatsoever by the descriptions in the Schedules or price breakdown of the works items. Any additional or balancing items necessary for the proper design, execution and completion of the Works and not expressly listed in the Schedule of Work Items shall be deemed to be included within the lump sums in all Schedules.

 - (iv) All items in all Schedules shall be priced as lump sums. The unit rates and quantities of the price breakdowns inserted by the Bidders in the Daywork Price Schedule and Schedule of Rates shall only be used as indicative build up for the tender sum.

- (v) The unit rates inserted by the Bidders in the Daywork Price Schedule may be adopted by the Engineer for Variations if he deems it appropriate to do so.

- 5. Section D – Specified Provisional Sums: The specific Provisional Sums shall be priced and their values shall be carried forward to the Grand Summary.

- 6. Section E – Grand Summary: The values of all Schedules shall be carried forward to the Grand Summary. The total amount of the Grand Summary shall be the Bid Price submitted by the Bidder.

Part 2 – General Preambles

General directions

1. The Schedule of Work Items have identified the scope of works but the descriptions therein are not exhaustive. The exact nature and extent of an item of work shall be ascertained by reference to the Drawings, Specification and Conditions of Contract, as not all requirements may be stated in the item description or its item coverage. Furthermore, whilst the item description and item coverage may make specific reference to certain Drawings and/or Specification, the item of work described is deemed to include for all requirements shown on all Drawings and/or Specification pertaining to that item of work irrespective of whether or not the Drawing and/or Specification is stated in the item description or item coverage. The item description of an item of work shall be deemed to include the carrying out of all work and services necessary or desirable for the satisfactory completion of such item of work in accordance with the Contract.

The rate and/or price inserted against an item of work in the Schedule of Prices shall be deemed to be the full inclusive value of executing, completing, maintaining and/or supplying such item of work including any incidental work thereto. The expression “incidental work” includes, but is not limited to, the carrying out of all work and services and complying with all obligations which are specified or reasonably implied in the Contract and which are related to, arise out of or are connected

with the item of work as described in its headings, subheadings, item description and item coverage. The rates and prices inserted against the items of work in the Schedule of Prices shall include, but are not limited to, the following:

- (i) provision of labour and costs in connection therewith;
- (ii) provision of management, technical, supervisory and key staff, including the Key Personnel as mentioned in the bid submission and included in the Contract;
- (iii) provision of Contractor's Equipment and costs in connection therewith;
- (iv) the supply, transportation, handling and storage of materials and goods;
- (v) multiple handling of any kind;
- (vi) sampling and testing and costs in connection therewith;
- (vii) assembling, fixing, erecting, installing or placing of materials and goods in position;
- (viii) preparation of surfaces and other preparatory work for follow-on activities;
- (ix) wastage, bulking, shrinkage and the disposal of surplus material;
- (x) temporary protection and its subsequent removal;
- (xi) Temporary Works;
- (xii) design of the works or any parts thereof including Design Checking, Warranties, submission of initial designs for Engineer's approval in principle, submissions of detailed designs for Engineer's final review and Employer's final approval;
- (xiii) NOT USED;

- (xiv) taking precautions and measures as far as is reasonable and practical to prevent interference with or damage to existing structures and utilities, roads, footpaths and paved areas, watercourses and drainage systems, public and private vehicular and pedestrian accesses, trees, graves and burial urns, including the provision of alternative access, if necessary;
- (xv) keeping the Works where necessary, and as near as may be practical, free of water and protected from damage due to water and from weather conditions which may adversely affect the Works, and taking measures to prevent flotation of new or existing structures;
- (xvi) taking all measures required to execute the work as affected by non-tidal open water or tidal water;
- (xvii) provision of working space and upholding the sides of excavations;
- (xviii) carrying out trial mixes, trial runs and all other trials, demonstrations and mock-ups;
- (xix) completion of formation and earthwork final surfaces;
- (xx) recording, taking readings, measurements and observations, and submitting to the Engineer all drawings, details of procedures and methods of construction to be used, technical literature, test certificates and any other documents or information required to be submitted under the Contract;
- (xxi) in the case of materials supplied by the Employer, return of the surplus;
- (xxii) notifying, submissions, making arrangements, coordination, and liaising with all relevant Government Departments, authorities, representatives of interface contracts listed in the Contract, or other interested parties to obtain, maintain and comply with all licenses, permits, consents and agreements necessary for the

commencement and execution of the Works, and costs in connection therewith;

(xxiii) any other liabilities, obligations and risks involved in the execution of the Works set forth or reasonably implied in the Contract;

(xxiv) establishment charges, overheads and profit.

(xxv) submitting to the Engineer all drawings, details of procedures and methods of construction to be used, technical literature, test certificates, progress reports, construction timelines and any other documents or information required to be submitted under the Contract;

(xxvi) in the case of plant and equipment supplied by the Employer, protection, maintenance and repair of such plant and equipment while it is in the possession of the Contractor, costs in connection with operating such plant and equipment, and return of plant and equipment to the Employer or replacement of such plant and equipment if it is damaged beyond repair or lost;

(xxvii) compliance with all enactments and regulations including the payment of all fees, levies, charges and the like and all costs in connection therewith;

(xxviii) carrying out of the Works in stages or sequences to suit the constraints imposed by the availability of the Site, site access and vacation requirements, Employer's programme of obtaining statutory approvals and consents for commencement of work and other relevant requirements as described in the Contract;

(xxix) testing, commissioning, maintenance and any other operations expressly or impliedly required; and

(xxx) any costs that the Bidder may have omitted is deemed to be included in the price of other Schedule of Works in the Schedule of Prices and

will not be paid for separately by the Employer.

- | | | |
|---|----|---|
| <i>Use of alternative materials or designs</i> | 2. | Where in the Contract a choice of alternative materials or designs is indicated for a given purpose, the descriptions and rates/prices inserted shall be deemed to cover any of the permitted alternative materials or designs which the Contractor may elect to use. |
| <i>Unpriced items</i> | 3. | Items against which no price is entered shall be deemed to be covered by the other prices in the Schedule of Prices. |
| <i>General Attendance</i> | 4. | General Attendance in connection with Nominated Sub-contractors or specialist contractors directly employed by the Employer, if any, shall include for affording the use of existing work space, access, temporary roads, erected scaffolding, working shelters, staging, ladders, hoists, storage, latrines, messing, welfare and other facilities existing on Site and the provision of protection, water, telephone, electricity for lighting, and clearing away rubbish and debris arising from the work. |
| <i>Adjustment item</i> | 5. | As stated under Clause 13. Variation and Adjustments of Part B. Particular Conditions. |
| <i>Cost of test of materials and workmanship</i> | 6. | Except for those tests provided for as separate items of work in the Schedules, the rates or prices contained in the Contract shall be deemed to include for the cost of carrying out all tests on materials and workmanship specified in the Contract, including but not limited to, the cost of packing and transport required for delivering samples to and collecting from the place of testing, off site factory tests, on site tests, final tests and commissioning. |

Work affected by water 7. The Site is affected by a number of streams and rivers. These are shown in the Employer's Requirements and these bodies of water are not identified individually in these Preambles.

Work items which are affected by water will not be identified separately in the Schedules of Work Items.

For the avoidance of doubt, the rates inserted by Contractor shall be deemed to include any works required as a result of any temporary or permanent works affected by water.

Payment for Method Related Charges 8. Not applicable.

SECTION B – DAY WORK PRICE SCHEDULE AND SCHEDULE OF RATES

Part 1 - Day Work Price Schedule

Reference is made to Sub-Clause 13.6 of the General Conditions. Work shall not be executed on a daywork basis except by written order of the Engineer. Bidders shall enter basic rates for daywork items in the Schedules, which rates shall apply to any quantity of daywork ordered by the Engineer. Nominal quantities have been indicated against each item of daywork, and the extended total for Daywork shall be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for daywork shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract. This Section shall be read in conjunction with the Schedule of Rates on the other Day Work Rates of the items under J1.

Schedule of Daywork Rates: 1. Labor

<i>Item no.</i>	<i>Description</i>	<i>Unit</i>	<i>Nominal quantity</i>	<i>Rate</i>	<i>Extended amount</i>
	----	Day	----	----	

Subtotal					
Total for Daywork: Labor (carried forward to Daywork Summary, p. _____) _____					

Schedule of Daywork Rates: 2. Materials

<i>Item no.</i>	<i>Description</i>	<i>Unit</i>	<i>Nominal quantity</i>	<i>Rate</i>	<i>Extended amount</i>
Subtotal					
Total for Daywork: Materials (carried forward to Daywork Summary, p. _____) —					

Schedule of Daywork Rates: 3. Contractor's Equipment

<i>Item no.</i>	<i>Description</i>	<i>Nominal quantity (hours)</i>	<i>Basic hourly rental rate</i>	<i>Extended amount</i>
			Subtotal	
	Allow __percent ^a of Subtotal for Contractor's overhead, profit, etc.			
Total for Daywork: Contractor's Equipment ____ (carried forward to Daywork Summary, p. ____)				

a. To be entered by the Bidder.

Daywork Summary

	<i>Amount^a</i> ()	<i>% Foreign</i>
1. Total for Daywork: Labor		
2. Total for Daywork: Materials		
3. Total for Daywork: Contractor's Equipment		
Total for Daywork (Provisional Sum) (carried forward to Bid Summary, p. _____)	_____	_____

a. The Employer should insert local currency unit.

Section C – SCHEDULE OF WORK ITEMS

Prepared by the Bidders.

Section D

SPECIFIED PROVISIONAL SUMS

<i>Item no.</i>	<i>Description</i>	<i>Amount</i>
1		
2		
3		
etc.		
Total for Specified Provisional Sums (carried forward to Grand Summary (E), p. _____)		_____

Section E

GRAND SUMMARY

Schedule No.	Milestones in each Schedule	Schedule of Prices in Pesos
1		
2		
3		
4		
5		
6		
Sub-total of Part A		
7		
8		
9		
10		
Sub-total of Part B		
11		
12		
13		
14		
15		

Sub-total of Part C		
Schedule No.	Milestones in each Schedule	Schedule of Prices in Pesos
16		
17		
18		
Sub-total of Part D		
Grand total		

Section IX -C.

Technical Proposal Forms

- 1.** Design Methodology
- 2.** Construction Management Strategy
- 3.** Contractor's Equipment
- 4.** Method Statement for key construction activities
- 5.** Systems/equipment procurement, installation, testing and commissioning
- 6.** Work Program
- 7.** Code of Conduct
- 8.** Risk Assessment
- 9.** Personnel Organization Chart
- 10.** Key Personnel
- 11.** Subcontractors

Appendix A. Technical Score Evaluation Table

Appendix B. Threshold Technical Requirements

Section IX-C.1.

Design Methodology

The Bidder shall submit a design methodology which addresses all items identified in Employer's Requirements, which include, inter alia, the following:

organizational arrangements for the design including: team structure, roles and responsibilities, interface arrangements, design review and approval procedures and quality assurance arrangements;

proposed design deliverables;

design statement setting out how the Employers Requirements will be achieved;

any added value the bidder will bring including examples of innovative aspects of the design;

comments on the Employer's Requirements, including:

- i. status of the information available and relevant design issues for the Works;
- ii. comments on any errors, defects or ambiguities noted in the Employer's Requirements; and
- iii. details of any exceptions in the conceptual design taken to the Employer's Requirements;

details of the approach to managing risks, stakeholder engagement, consultation and environmental permits/consents;

value engineering (value management) arrangement;

initial layouts of the San Pablo depots; and

proposal on train control system;

Section IX-C.2.

Construction Management Strategy

The Bidder shall submit a construction management strategy as per Employer's Requirements, which shall address, inter alia:

- (a) organizational arrangements for the construction management including: team structure, roles and responsibilities, interface arrangements, approval procedures and quality assurance arrangements;
- (b) subcontractor selection and management;
- (c) proposals for training all personnel attending site;
- (d) stakeholder engagement;
- (e) obtaining and managing consents, permits and approvals;
- (f) site setup proposals including access, accommodation, welfare facilities, arrangement for plant and material storage;
- (g) construction phasing proposals including innovative initiatives, technical feasibility and its degree of risks, sequence of work and management of conflicting activities;
- (h) ensuring that geotechnical investigations or other advance works meet the regulatory requirements;
- (i) risk management approach for geotechnical and subsurface aspects of the Works;
- (j) quality management system including a draft of the quality management plan;
- (k) preparation, approval and implementation for the Contractor's environmental and social management plan;
- (l) preparation, approval and implementation for the Contractor's health and safety management plan;
- (m) grievance redress mechanisms;
- (n) reporting arrangements;
- (o) arrangements for testing upon completion of the works;
- (p) arrangements for site handover, including completion of as-built drawings, preparation of operation and maintenance manuals, and any other relevant aspects.

Section IX-C.3.

Contractor's Equipment

The Bidder shall provide its strategy for acquiring and maintaining the key equipment that may be needed to execute the Works in accordance with the Work Program. In the strategy, the Bidder shall specify the manufacturer, capacity, model, power rating, age and maintenance condition, and how it will ensure that the equipment is maintained in accordance with manufacturer's specifications for the duration of the Contract. The Bidder shall specify whether it will own, lease, rent or specially manufacture the key equipment. The Bidder shall also provide the following:

- (a) List of major equipment and plants to meet the works and programme requirements;
- (b) programme for delivery of the major equipment and plants to meet the works and programme requirements; and
- (c) list of backup major equipment and plants for maintaining the programme rate to cater for breakdowns of those equipment and plants.

Section IX-C.4.

Method Statements for Key Construction Activities

The Bidder shall provide typical method statements, including innovative initiatives, feasibility and its degree of risks for the following key construction activities. Each method statement shall describe the proposed approach to the construction activity, the level of staffing and experience, the safe system of work, and the construction equipment to be used.

- (a) Site establishment including access, accommodation, plant and materials storage arrangement, water and power supply, etc.;
- (b) Back-up facilities supports, e.g. concreted batching plant, casting yards for pre-cast units, back-up power supply, etc. and flood protection during construction;
- (c) Construction of the cut (in slope) and fill (embankment) sections and handling of excavated (spoil and dumping) materials and fill materials to achieve the specified construction periods;
- (d) Disposal of unsuitable excavated materials;
- (e) Proposal for confirming the suitability of the materials of the fill material borrow sites for embankment and backfilling works;
- (f) Proposals for additional ground investigation for the detailed design and the works;
- (g) Proposal on identifying uncharted existing aboveground and underground utilities;
- (h) Construction of the elevated section and use of casting yards if needed;
- (i) Construction of the stations and the depots;
- (j) Proposals on train stabling;
- (k) Construction of trackworks and track-side facilities;
- (l) Construction of the electrical and mechanical works of stations;
- (m) Train delivery, railway systems and train/railway system testing and commissioning; and
- (n) Any innovative proposals of the above or other key activities.

Section IX-C.5.

Systems/Equipment Procurement, Installation, Testing and Commissioning

The Bidder shall submit its procurement plan of systems/equipment, work plan of installation, work plan of testing and commissioning for SLH Package 1.

As a basis, the Bidder shall prepare a detailed list of main systems, equipment and materials for SLH Package 1 operation, a timeline of delivery of main equipment, which is suitable for the construction plan, a work plan of equipment installation, measures will be taken to ensure that equipment and materials comply with relevant specifications, and a work plan of equipment individual testing and each system commissioning as a whole.

Section IX-C.6.

Work Program

The Bidder shall set out a work program for design and construction of the Works to be undertaken, including innovative ways of working, identification of major milestones and critical path. The proposed work program shall be developed based on the Employer's Requirements and shall describe the following:

- (a) design of the Works, including the submission of the design deliverables, review and approval of the design by the Engineer;
- (b) processes and deliverables needed to commence the Works;
- (c) proposal for investigating uncharted above-ground and underground utilities to achieve the required programme completion dates;
- (d) proposal and programme for additional ground conditions for achieving the required programme completion dates;
- (e) proposal on number and starting location/direction of work fronts for achieving the required programme completion dates;
- (f) track-related installation programme to demonstrate how to achieve the required programme completion dates;
- (g) proposal on procurement of and delivery on site major equipment, plants and materials to meet the programme;
- (h) proposal on temporary site access routes/roads and haul roads;
- (i) proposal for bringing in sufficient skillful labours and experts for the specialist works, including trackworks, railway systems and train/system testing/commissioning;
- (j) programme for testing and commissioning for building services works of essential plant rooms and station control rooms for stations and depots;
- (k) programme for factory acceptance tests, delivery to site and on-site static/dynamic tests for trainsets;
- (l) assumptions on working hours and workings days;
- (m) source of cement and concrete supply;
- (n) source of ballast materials for trackworks;
- (o) source of rails and delivery of rails to site;
- (p) hauling of excavated materials for filling embankments;

- (q) hauling of excavated and filling materials;
- (r) temporary storage of excavated materials;
- (s) availability of concrete delivery trucks;
- (t) clearly listing out long lead time procurement and manufacturing items which requires more than 3 months, shall be shown on the Program for progress monitoring and to meet programme requirement;
- (u) execution of the Works, including innovative works methods and sequence, within the Time for Completion, highlighting activities imposing constraints on the construction sequence; and
- (v) testing, commissioning and handing over of the completed Works.

Section IX-C.7.

Code of Conduct

Environmental, Social, Health and Safety (ESHS)

The Bidder shall submit its Code of Conduct that will apply to Contractor's Personnel (as defined in Sub-clause 1.1.2.7 of the General Conditions), to ensure compliance with its Environmental, Social, Health and Safety (ESHS) obligations under the contract as detailed in the Employer's Requirements.

In addition, the Bidder shall detail how this Code of Conduct will be implemented. This will include: how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Contractor proposes to deal with any breaches.

Section IX-C.8.

Risk Assessment

Based on the risk and hazard log in Section VI. Employer's Requirements, the Bidder should submit an updated risk register identifying the hazards anticipated during the implementation of the contract, which shall include a description of the hazard, an assessment of the potential impact on health and safety, environment, cost, program or other, and the proposed mitigation strategy, including innovative mitigation proposals, for each hazard.

Section IX-C.9.

Personnel Organizational Chart

The Bidder shall provide an organizational chart illustrating the proposed management structure and reporting lines for delivery of the Contract.

Section IX-C.10.

Key Personnel

Part A. Key Personnel qualifications and level of effort

Bidders should provide the names and details of the suitably qualified Contractor's Representative and Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate. Bidders should submit a fully detailed Key Personnel resource schedule for the whole contract implementation period. The resource schedule must include:

- the name and role for each Key Personnel position
- The duration of each Key Personnel appointment
- The level of effort (time) allocated to each Key Personnel position and its distribution throughout the contract implementation period.

	Title of position	Name of candidate	
1.	<i>[Project Director]</i>		
<i>Key Personnel for Design</i>			
2.	<i>[Design Manager]</i>		
3.	<i>[Environmental Impact Assessment Specialist]</i>		
4.	<i>[Health and Safety Specialist]</i>		
5.	<i>[Modify/add others as appropriate]</i>		
<i>Key Personnel for Construction</i>			
6.	<i>[Construction Manager]</i>		
7.	<i>[Environmental Specialist]</i>		
8.	<i>[Health and Safety Specialist]</i>		
9.	<i>Survey Manager</i>		
10.	<i>[Modify/add others as appropriate]</i>		

Section IX-C.10.

Key Personnel

Part B. Resume and Declaration

Project Director and Key Personnel

Name of Bidder

Position [#1]: [title of position]											
Personnel information	<table border="1"> <tr> <td>Name:</td> <td>Date of birth:</td> </tr> <tr> <td>Address:</td> <td>E-mail:</td> </tr> <tr> <td colspan="2">Professional qualifications:</td> </tr> <tr> <td colspan="2">Academic qualifications:</td> </tr> <tr> <td colspan="2">Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i></td> </tr> </table>	Name:	Date of birth:	Address:	E-mail:	Professional qualifications:		Academic qualifications:		Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>	
Name:	Date of birth:										
Address:	E-mail:										
Professional qualifications:											
Academic qualifications:											
Language proficiency: <i>[language and levels of speaking, reading and writing skills]</i>											
Details	<table border="1"> <tr> <td colspan="2">Address of employer:</td> </tr> <tr> <td>Telephone:</td> <td>Contact (manager / personnel officer):</td> </tr> <tr> <td>Fax:</td> <td></td> </tr> <tr> <td>Job title:</td> <td>Years with present employer:</td> </tr> </table>	Address of employer:		Telephone:	Contact (manager / personnel officer):	Fax:		Job title:	Years with present employer:		
Address of employer:											
Telephone:	Contact (manager / personnel officer):										
Fax:											
Job title:	Years with present employer:										

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

Project	Role	Duration of involvement	Relevant experience
----------------	-------------	--------------------------------	----------------------------

<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

Declaration

I, the undersigned Key Personnel, certify that to the best of my knowledge and belief, the information contained in my resume correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

Commitment	Details
Commitment to duration of contract:	<i>[insert period (start and end dates) for which this Key Personnel is available to work on this contract]</i>
Time commitment:	<i>[insert the number of days/week/months/ that this Key Personnel will be engaged]</i>

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Bid evaluation;
- (b) my disqualification from participating in the Bid;
- (c) my dismissal from the contract.

Name of Key Personnel: *[insert name]*

Signature:

Date: (day month year):

Countersignature of authorized representative of the Bidder:

Signature:

Date: (day month year): _____

Section IX-C.11.

Subcontractors

Proposed Subcontractors

The following Subcontractors and/or manufacturers are proposed for carrying out the activity/subactivity indicated. For any additional subcontractor (that is not the Specialized Subcontractor accepted in the initial selection process or subsequently approved by the Employer in accordance with ITP 14.3), Bidders are free to propose more than one Subcontractor for each activity/subactivity. The Bidder shall submit an undertaking from each proposed subcontractor to confirm that they have read, understood and will comply with the ESHS obligations and Code of Conduct.

Activity/Sub-Activity	Proposed Subcontractors

**Section IX-C.
Appendix A**

Technical Score Evaluation Table

Areas for Assessment	Rating (%)	Evaluation Criteria and Scores (Points)
		<p>A = 100% of allocated score B = 80% of allocated score C = 50% of allocated score D = 0% of allocated score</p>
1. Bidder's Design Capability	15	<p>(7 points)</p> <p>For the Bidder's submission on Design Methodology (including alternative design) in Section VI. Employer's Requirements and Bidding Document Section IX. Bidding Form.</p> <p>(A: 7.0 points) Understanding of the relevant design issues in pointing out at least 5 key issues with added value design or innovative aspects of the design.</p> <p>(B: 6.0 points) Understanding of the relevant design issues in pointing out at least 4 key issues with added value design or innovative aspects of the design.</p> <p>(C: 4.0 point) Understanding of the relevant design issues in pointing out at least 3 key issues with added value design or innovative aspects of the design.</p> <p>(D: 0.0 point) None of the above.</p>
		<p>(8 points)</p> <p>For the Bidder's submission on the Single Largest Completed Contract (SLCC) for the detailed engineering design of a railway project to demonstrate his railway design ability and experience within the last twenty (20) years in worldwide.</p> <p>Where the value or length of the railway project,</p> <p>(A: 8.0 points) Exceed 150% of fifty percent (50%) of the ABC or exceed 150% of fifty percent (50%) of the length of the project.</p> <p>(B: 6.0 points) Between 125% and 150% of fifty percent (50%) of the ABC or between 125% and 150% of fifty percent (50%) of the length of the project.</p> <p>(C: 4.0 points) Between 100% and 125% of fifty percent (50%) of the ABC or between 100% and 125% of fifty</p>

Areas for Assessment	Rating (%)	Evaluation Criteria and Scores (Points)
		<p>percent (50%) of the length of the project.</p> <p>(D: 0.0 point) None of the above.</p>
2. Bidder's Railway Construction Experience	15	<p>(15 points)</p> <p>The Bidder shall submit three largest completed contracts including his SLCC to demonstrate his railway construction ability and experience within the last twenty (20) years in worldwide.</p> <p>Where the average value of three largest completed contracts,</p> <p>(A: 15.0 points) Exceed 100% of fifty percent (50%) of the ABC.</p> <p>(B: 12.0 points) Between 80% to 100% of fifty percent (50%) of the ABC.</p> <p>(C: 8.0 points) Between 50% to 80% of fifty percent (50%) of the construction cost.</p> <p>(D: 0.0 point) None of the above.</p>
3. Construction Management Strategy	28	<p>(10 points)</p> <p>For the Bidder's submission on Construction Management Strategy as per the Employer's Requirements and the Bidding Document Section IX Bidding Form.</p> <p>(A: 10.0 points) Understanding of anticipated construction and construction management difficulties in pointing out at least 5 key issues with technical solutions or innovative solutions to the identified key issues.</p> <p>(B: 8.0 points) Understanding of anticipated construction and construction management difficulties in pointing out at least 4 key issues with technical solutions or innovative solutions to the identified key issues.</p> <p>(C: 5.0 points) Understanding of anticipated construction and construction management difficulties in pointing out at least 3 key issues with technical solutions or innovative solutions to the identified key issues.</p> <p>(D: 0.0 point) None of the above.</p> <hr/> <p>(10 points)</p> <p>For the Bidder's submission on Method Statements for Key Construction Activities.</p> <p>(A: 10.0 points) Comprehensive with complete illustration of</p>

Areas for Assessment	Rating (%)	Evaluation Criteria and Scores (Points)
		<p>anticipated Method Statements for at least 5 key construction activities on how to achieve the completion dates of the Contract with at least one innovative construction method.</p> <p>(B: 8.0 points) Comprehensive with complete illustration of anticipated Method Statements for 4 key construction activities on how to achieve the completion dates of the Contract.</p> <p>(C: 5.0 points) Comprehensive with complete illustration of anticipated Method Statements for 3 key construction activities on how to achieve the completion dates of the Contract.</p> <p>(D: 0.0 point) None of the above.</p> <hr/> <p>(8 points)</p> <p>For the Bidder's submission on Contractor's Equipment.</p> <p>(A: 8.0 points) Provided evidence to demonstrate timely delivery of essential equipment or plant to site that are suitable for the major works on construction of the elevated, at-grade and deep cut sections or for the major works of the alternative design.</p> <p>(B: 6.0 points) Provided evidence to demonstrate delivery of essential equipment to site on schedule.</p> <p>(C: 4.0 points) Provided time table for delivery of essential equipment to site on schedule.</p> <p>(D: 0.0 point) Essential equipment or plant delivery schedule not in line with the submitted Work Program or none of the above.</p>
4. Systems/equipment procurement, installation, testing and commissioning	12	<p>(12 points)</p> <p>For the Bidder's submission on Contractor's procurement plan of systems/equipment, installation, testing and commissioning for SLH Package 1.</p> <p>(A: 12.0 points) If the bidder provides all of the following (1) detailed list of main equipment and materials, (2) timeline of delivery of main equipment, which is suitable for the construction plan, (3) reasonable plan of equipment installation; (4) practicable measures to ensure that equipment and materials comply with relevant specifications, (5) detailed work plan of testing and commissioning.</p> <p>(B: 10.0 points) If the bidder provides only 4 items that can meet the above requirements.</p>

Areas for Assessment	Rating (%)	Evaluation Criteria and Scores (Points)
		<p>(C: 6.0 points) If the bidder provides only 3 items that can meet the above requirements.</p> <p>(D: 0.0 point) None of the above.</p>
5. Risk Assessment	10	<p>(10 points)</p> <p>For the Bidder's submission on risk register under the Risk Assessment with the proposed mitigation strategy for each hazard.</p> <p>(A: 10.0 points) Comprehensively identified at least 5 key project risks with valid and relevant mitigation measures.</p> <p>(B: 8.0 points) Comprehensively identified 4 key project risks with valid and relevant mitigation measures.</p> <p>(C: 5.0 points) Comprehensively identified at 3 key project risks with valid and relevant mitigation measures.</p> <p>(D: 0.0 point) None of the above.</p>
6. Bidder's Temporary Operation Experience	8	<p>(8 points)</p> <p>For the Bidder's submission of his completed projects with a brief report on the project profile, staff, transportation description etc. to demonstrate his railway Temporary Operation Experience in worldwide.</p> <p>(A: 8.0 points) 3 or more projects</p> <p>(B: 6.0 points) 2 projects.</p> <p>(C: 4.0 points) 1 projects.</p> <p>(D: 0.0 point) None of the above.</p>
7. Key Personnel 7a. Project Director 7b. Design Manager 7c. Construction Manager	12	<p>(12 points)</p> <p>7a Project Director</p> <p>A:(6.0 points) if 7.a. has 20 or more years of experience in similar position and 20 or more years of experience in railway construction.</p> <p>B: (5.0 points) if 7.a. has 15 or more years of experience in similar position and 15 or more years of experience in railway construction.</p> <p>C: (3.0 points) if 7.a. has 10 or more years of experience in similar position and 10 or more years of experience in railway construction.</p> <p>D:(0.0 point) if 7.a. has less than 10 years of experience in</p>

Areas for Assessment	Rating (%)	Evaluation Criteria and Scores (Points)
		<p>similar position and has less than 10 years of experience in railway construction.</p> <p>7b Design Manager</p> <p>A:(3.0 points) if 7.a. has 20 or more years of experience in similar position and 20 or more years of experience in railway construction.</p> <p>B: (2.5 points) if 7.a. has 15 or more years of experience in similar position and 15 or more years of experience in railway construction.</p> <p>C: (1.5 points) if 7.a. has 10 or more years of experience in similar position and 10 or more years of experience in railway construction.</p> <p>D:(0.0 point) if 7.a. has less than 10 years of experience in similar position and has less than 10 years of experience in railway construction.</p> <p>7c Construction Manager</p> <p>A:(3.0 points) if 7.a. has 20 or more years of experience in similar position and 20 or more years of experience in railway construction.</p> <p>B: (2.5 points) if 7.a. has 15 or more years of experience in similar position and 15 or more years of experience in railway construction.</p> <p>C: (1.5 points) if 7.a. has 10 or more years of experience in similar position and 10 or more years of experience in railway construction.</p> <p>D:(0.0 point) if 7.a. has less than 10 years of experience in similar position and has less than 10 years of experience in railway construction.</p>
Total Score	100	

**Section IX -C.
Appendix B**

Threshold Technical Requirements

Areas for Assessment of Technical Proposal	Threshold Technical Requirements
1. Bidder's Experience	<p>The Bidder shall submit a Single Largest Completed Contract (SLCC) to demonstrate his railway design and construction ability and experience within the last twenty (20) years in worldwide.</p> <p>In the case of the Bidder submits a design and construction contract, the contract shall be a detailed engineering design and construction, Engineering Procurement Construction and Commissioning ("EPCC"), or Turnkey contract for a railway project with a value of equivalent to fifty percent (50%) of the ABC; or</p> <p>In the case of the Bidder submits a separate design and construction contracts, which shall include:</p> <p>(a) a single largest completed contract for the construction of a railway project with a value of equivalent to fifty percent (50%) of the ABC; and</p> <p>(b) a single largest completed contract for the detailed engineering design of a railway project with a value of equivalent to fifty percent (50%) of the ABC.</p>
2. Design Methodology	The Bidder shall submit a design methodology which address all key items identified in Section VI Employer's Requirements and Bidding Document Section IX Bidding Forms.
3. Construction Management Strategy	The Bidder shall submit construction management strategy as per Section VI Employer's Requirements and Bidding Document Section IX Bidding Forms.
4. Contractor's Equipment	The Bidder shall provide its strategy for acquiring and maintaining the key equipment that may be needed to execute the Works in accordance with the Work Program. In the strategy, the Bidder shall specify the manufacturer, capacity, model, power rating, age and maintenance condition, and how it will ensure that the equipment is maintained in accordance with manufacturer's specifications for the duration of the Contract. The Bidder shall specify whether it will own, lease, rent or specially manufacture the key equipment.
5. Method	The Bidder shall provide typical and innovative Method

Areas for Assessment of Technical Proposal	Threshold Technical Requirements
Statements for Key Construction Activities	<p>Statements for the key construction activities. Each Method Statements shall describe the proposed approach to the construction activity, the level of staffing and experience, the safe system of work, and the construction equipment to be used. The key construction activities are described, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> a. Site establishment including access, accommodation, plant and materials storage arrangement, water and power supply, etc. b. Bulk excavation works and spoil dumping. c. Elevated section construction works. d. Tunnel section construction works. e. Back-up facilities supports, e.g. concrete batching plant, casting yards for pre-cast units, power supply, water supply, etc. f. Flood protection during construction.
6. Work plan of systems / equipment procurement, installation, testing and commissioning	<p>The Bidder shall submit Contractor's procurement plan of systems / equipment, installation, testing and commissioning for SLH Package 1 based on Bill of Quantities. The work plan shall include, but not limited to,</p> <ul style="list-style-type: none"> a. List of main equipment and materials. b. Timeline of delivery of main equipment. c. Plan of equipment installation. d. Measures to ensure that the equipment and materials is in compliance with relevant specifications. e. Work plan of testing and commissioning.
7. Work Program	<p>The Bidder shall set out a work program for design and construction of the Works to be undertaken, including identification of major milestones and critical path. The proposed work program shall be developed based on Section VI. Employer's Requirements and the requirements described in the Bidding Document Section IX. Bidding Form.</p> <p>To standardize Work Program presentation, the work program shall be also included, but not limited to, the followings:</p> <ul style="list-style-type: none"> a. PERT/CPM or other acceptable tools of project scheduling. b. Present in bar chart format for planned activities. c. Resources allocation. d. S-curve. e. Manpower schedule. f. Production rates and works quantities. g. Working days per month allowed in program. h. Major milestones.

Areas for Assessment of Technical Proposal	Threshold Technical Requirements
8.Code of Conduct	<p>The Bidder shall submit its Code of Conduct that will apply to the Contractor’s Personnel (as defined in Sub-clause 1.1.2.7 of the GC), to ensure compliance with its Environmental, Social, Health and Safety (ESHS) obligations under the contract as detailed in Section VI. Employer’s Requirements and Bidding Document Section IX. Bidding Form.</p> <p>In addition, the Bidder shall detail how this Code of Conduct will be implemented. This will include: how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Contractor proposes to deal with any breaches.</p>
9.Risk Assessment	<p>The Bidder shall submit a risk register identifying the hazards anticipated during the implementation of the contract, which shall include a description of the hazard, location, potential causes, effects/consequences, risk levels, an assessment of the potential impact on health and safety, environmental, cost, program or others, and the proposed mitigation strategy for each hazard.</p>
10.Project Organizational Chart	<p>The Bidder shall provide an organizational chart illustrating the proposed management structure, CV and reporting lines for delivery of the Contract.</p>
11.Key Personnel	<p>Bidders shall provide the names and details of the suitably qualified Project Director and Key Personnel to perform the Contract. The data on their experience should be supplied using the Forms under Section IX-C.10. and C.11. for each candidate. Bidder should submit a fully detailed Key Personnel resource schedule for the whole contract implementation period. The resource schedule must include:</p> <ul style="list-style-type: none"> • The name and role for each Key Personnel position • The duration of each Key Personnel appointment • The level of effort (time) allocated to each Key Personnel position and its distribution throughout the contract implementation period. <p>Following Key Personnel shall have minimum years of working experience for the railway related projects as described below:</p> <ol style="list-style-type: none"> a. Project Director shall have not less than 10 years’ working experience for the relevant railway projects. b. Design Manager shall have not less than 10 years’ working experience for the relevant railway projects. c. Construction Manager shall have not less than 10 years’ working experience for coordination of external stakeholders, interfacing projects, utilities undertakers, railway system; etc.

Areas for Assessment of Technical Proposal	Threshold Technical Requirements
12.Subcontractors	<p>The Bidder shall submit a construction management strategy as per Section VI. Employer’s Requirements and/or Bidding Document Section IX. Bidding Form which shall address subcontractor selection and management.</p> <p>Key personnel of the subcontractors’ CV shall also be included.</p>

Section IX-D.

Form of Contract Agreement

THIS CONTRACT AGREEMENT, made this *[insert date]* day of *[insert month]*, *[insert year]* between *[name and address of PROCURING ENTITY]* (hereinafter called the “Entity”) and *[name and address of Contractor]* (hereinafter called the “Contractor”).

WHEREAS, the Entity is desirous that the Contractor execute *[name and identification number of contract]* (hereinafter called “the Works”) and the Entity has accepted the Bid for *[insert the amount in specified currency in numbers and words]* by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW THIS CONTRACT AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Contract Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents shall be attached, deemed to form, and be read and construed as integral part of this Contract Agreement, to wit:
 - (a) the Conditions of Contract, consisting of the General Conditions of Contract and the Particular Conditions;
 - (b) the Employer’s Requirements;
 - (c) the Invitation to Bid;
 - (d) the Instructions to Bidders;
 - (e) the Bid Data Sheet;
 - (f) Addenda and/or Supplemental/Bid Bulletins, if any;
 - (g) the Bid form, including all the documents/statements contained in the Bidder’s bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder’s response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity’s bid evaluation;
 - (h) the eligibility requirements, documents and/or statements;
 - (i) the Performance Security;
 - (j) the Notice of Award of Contract and the Bidder’s confirmation thereto;
 - (k) Other contract documents that may be required by existing laws and/or the Entity.
3. In consideration of the payments to be made by the Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Entity to

execute and complete the Works and remedy any defects therein in conformity with the provisions of this Contract Agreement in all respects.

4. The Entity hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects wherein, the Contract Price or such other sum as may become payable under the provisions of this Contract at the times and in the manner prescribed by this Contract Agreement.
5. The effectivity of this contract is contingent upon the effectivity of the loan agreement for the project and that no liability shall attach on the part of the DOTr and PS-DBM in case the loan negotiation is not perfected or declared effective.

IN WITNESS whereof the parties thereto have caused this Contract Agreement to be executed the day and year first before written.

Signed, sealed, delivered by _____ the _____ (for the Entity)

Signed, sealed, delivered by _____ the _____ (for the Contractor).

Binding Signature of Procuring Entity

Binding Signature of Contractor

[Addendum showing the corrections, if any, made during the Bid evaluation should be attached with this agreement]

Section IX-E.

Omnibus Sworn Statement

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.

AFFIDAVIT

I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:

1. **Select one, delete the other:**

If a sole proprietorship: I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

If a partnership, corporation, cooperative, or joint venture: I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

2. **Select one, delete the other:**

If a sole proprietorship: As the owner and sole proprietor or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity] [insert "as shown in the attached duly notarized Special Power of Attorney" for the authorized representative];

If a partnership, corporation, cooperative, or joint venture: I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], accompanied by the duly notarized Special Power of Attorney, Board/Partnership Resolution, or Secretary's Certificate, whichever is applicable;

3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board;

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. **Select one, delete the rest:**

If a sole proprietorship: The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a partnership or cooperative: None of the officers and members of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

If a corporation or joint venture: None of the officers, directors, and controlling stockholders of *[Name of Bidder]* is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. *[Name of Bidder]* complies with existing labor laws and standards; and

8. *[Name of Bidder]* is aware of and has undertaken the following responsibilities as a Bidder:

a) Carefully examine all of the Bidding Documents;

b) Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract;

c) Made an estimate of the facilities available and needed for the contract to be bid, if any; and

d) Inquire or secure Supplemental/Bid Bulletin(s) issued for the *[Name of the Project]*.

9. *[Name of Bidder]* did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.

10. *[Name of the Bidder]* hereby assigns the following contact number/s and email address as the official telephone/fax number and contact reference of the company where the BAC notices may be transmitted.

(1) _____

Telefax/Phone Number : (2) _____

(3) _____

Email Address : _____

It is understood that notice/s transmitted in the above stated telephone/fax numbers and/or email address are deemed received as of its successful transmittal and the reckoning period for the reglementary periods in the bidding documents and RA No. 9184 IRR.

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of ___, 20__ at _____, Philippines.

Bidder's Representative/Authorized Signatory

SUBSCRIBED AND SWORN to before me this ___ day of [month] [year] at [place of execution], Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her [insert type of government identification card used], with his/her photograph and signature appearing thereon, with no. _____ and his/her Community Tax Certificate No. _____ issued on ___ at _____.

Witness my hand and seal this ___ day of [month] [year].

NAME OF NOTARY PUBLIC

Serial No. of Commission _____

Notary Public for _____ until _____

Roll of Attorneys No. _____

PTR No. _____ [date issued], [place issued]

IBP No. _____ [date issued], [place issued]

Doc. No. _____

Page No. _____

Book No. _____

Series of _____

Section IX-F.

Bid-Securing Declaration

(REPUBLIC OF THE PHILIPPINES)
CITY OF _____) S.S.
X-----X

Invitation to Bid [*Insert reference number*]

To: [*Insert name and address of the Procuring Entity*]

I/We, the undersigned, declare that:

1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid-Securing Declaration.
2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1 (f), of the IRR of RA 9184; without prejudice to other legal action the government may undertake.
3. I/We understand that this Bid-Securing Declaration shall cease to be valid on the following circumstances:
 - a. Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right;
 - c. I am/we are declared as the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [*month*] [*year*] at [*place of execution*].

[Insert NAME OF BIDDER'S AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]

Affiant

SUBSCRIBED AND SWORN to before me this ___ day of *[month]* *[year]* at *[place of execution]*, Philippines. Affiant/s is/are personally known to me and was/were identified by me through competent evidence of identity as defined in the 2004 Rules on Notarial Practice (A.M. No. 02-8-13-SC). Affiant/s exhibited to me his/her *[insert type of government identification card used]*, with his/her photograph and signature appearing thereon, with no. _____.

Witness my hand and seal this ___ day of *[month]* *[year]*.

NAME OF NOTARY PUBLIC

Serial No. of Commission _____
Notary Public for _____ **until** _____
Roll of Attorneys No. _____
PTR No. __, *[date issued]*, *[place issued]*
IBP No. __, *[date issued]*, *[place issued]*
Doc. No. ____
Page No. ____
Book No. ____
Series of ____.

Section IX-G.

JOINT VENTURE AGREEMENT

(This form can be modified if necessary)

KNOW ALL MEN BY THESE PRESENTS:

This **JOINT VENTURE AGREEMENT** (hereinafter referred to as the "Agreement"), entered into this _____ day of _____ 21__ at _____ City, Philippines by and among:

_____, a domestic corporation duly organized, registered and existing under and by virtue of the laws of the Republic of the Philippines, with office address at _____, represented by its _____, _____, hereinafter referred to as "_____";

- and -

_____ a foreign corporation organized and existing under and by virtue of the laws of _____, represented by its _____, _____, hereinafter referred to as "_____";

(Henceforth collectively referred to as the "**Parties**")

WITNESSETH: That

WHEREAS, the Procurement Service (PS) has recently published an Invitation to Apply for Eligibility and to Bid for the Supply and Delivery of _____ for the _____;

WHEREAS, the parties have agreed to pool their resources together to form the "_____ Joint Venture", hereinafter referred to as the Joint Venture, under the laws of the Philippines, for the purpose of participating in the abovementioned procurement of PS-DBM;

NOW, THEREFORE, for and in consideration of the foregoing premises and the covenants hereto set forth, the Parties have agreed as follows:

ARTICLE I ORGANIZATION OF THE JOINT VENTURE

SECTION 1. Formation – The Parties do hereby agree and bind themselves to establish, form and organize a Joint Venture pursuant to the laws of the Republic of the Philippines, in order for the JV to carry on the purposes and objectives for which it is created;

SECTION 2. Name – The name and style under which the JV shall be conducted is “_____”;

SECTION 3. Principal Place of Business – The JV shall maintain its principal place of business at _____;

SECTION 4. Preparation and Documentation – The Parties shall secure and/or execute such certifications, documents, deeds and instruments as may be required by the laws of the Republic of the Philippines for the realization of the JV and in compliance with the Project. Further, they shall do all other acts and things requisite for the continuation of the JV pursuant to applicable laws;

SECTION 5. The Joint Venture shall be represented by the _____ in all biddings, related procurement transactions and other official dealings that it shall enter into with the PS-DBM and third parties, such transactions to include, among others, the submission of eligibility documents, bids, registration documents obtaining bonds, performing the principal contract in the event that the contract is awarded in favor of the Joint Venture, receipt of payment for goods delivered, and similar and related activities.

SECTION 6. The period of the Joint Venture shall begin upon execution of this Agreement and shall continue until the complete performance of its contractual obligations to PS-DBM, as described in Article II hereof, or upon its termination for material breach of any term or condition of this Agreement, by service of a written statement in English on the other Party, not less than 90 days prior to the intended date termination

ARTICLE II PURPOSE

SECTION 1. The primary purpose of the Joint Venture is to participate in the public bidding to be conducted by the DBM-PS Bids and Awards Committee for the supply and delivery of _____ for the _____.

SECTION 2. If the above-described contract/s is/are awarded to the Joint Venture, the Joint Venture shall undertake the performance thereof to PS-DBM, and such other incidental activities necessary for the completion of its contractual obligations.

ARTICLE III SOLIDARY LIABILITY OF THE PARTIES

SECTION 1. In the performance of the contract/s that may be awarded to the Joint Venture by the PS-DBM, and all other related activities/obligations, as described in Article II hereof, the Parties bind themselves jointly and solidarily, in the concept of solidarily debtors, subject to the right of reimbursement, as provided in the relevant provisions of the Civil Code of the Philippines.

**ARTICLE IV
CONTRIBUTION AND OTHER ARRANGEMENTS**

SECTION 1. Contribution – The Parties shall contribute the amount of _____ (Php) to support the financial requirements of the Joint Venture, in the following proportion:

A.	-	P	.00
B.	-	P	.00
TOTAL		P	.00

Additional contributions to the Joint Venture shall be made as may be required for contract implementation. In addition, ____ shall contribute any labor and contract management requirements.

SECTION 2. Profit Sharing – The share of the Parties to the JV from any profit derived or obtained from the implementation and execution of the Project shall be distributed pro rata to each, in accordance with the contribution and resources each has provided to the JV;

SECTION 3. Liquidation and Distributions – Any sum remaining after deducting from the total of all moneys or benefits received for the performance of the contract, all costs incurred by the JV after award of the contract for the Project pursuant to the accounting practices established for the JV, shall be distributed in accordance with the relative balances in the accounts of each Party pursuant to Sec.1 of this Article upon completion, final accounting, termination and liquidation of the JV. In the event of liquidation and termination of JV, and after taking into account the shares of the Parties in all income, gain, deductions, expenses, and losses, should the account of a Party contain a negative balance, such Party shall contribute cash to the JV sufficient to restore the said balance to zero;

SECTION 4. Sharing of Burden of a Net Loss – In case a net loss is incurred, additional contributions shall be made by the Parties in accordance with their respective shares.

**ARTICLE V
MISCELLANEOUS PROVISIONS**

SECTION 1. The provisions of the Instructions to Bidders, Supplemental Bid Bulletin, and other bidding documents issued by the PS-DBM in relation to the contract described in Article II hereof, shall be deemed incorporated in this Agreement and made an integral part thereof.

SECTION 2. This Agreement shall be binding upon and inure to the benefit of the Parties and their respective successors and assigns.

SECTION 3. The Parties herein are duly represented by their authorized officers.

SECTION 4. Governing Law - This Agreement shall be governed by and construed according to the laws of the Republic of the Philippines. Venue of any court action arising from this Agreement shall be exclusively laid before the proper court of the _____, Philippines.

IN WITNESS WHEREOF, the parties have set their hands and affixed their signatures on the date and place first above-stated.

Signed in the Presence of:

ACKNOWLEDGMENT

REPUBLIC OF THE PHILIPPINES)
CITY/MUNICIPALITY OF _____) S.S.
PROVINCE OF (in the case of Municipality)

BEFORE ME, a Notary Public for and in the City/Municipality of ___(indicate also the Province in the case of Municipality___, this _____ day of __(month & year)___ personally appeared the following:

Name ID Name, Number and Validity Date

Known to me and to me known to be the same persons who executed the foregoing instrument and they acknowledge to me that the same is their free and voluntary act and deed and that of the corporation(s) they represent.

This instrument refers to a Joint Venture Agreement consisting of _____ pages, including the page on which this Acknowledgement is written, and signed by the parties and their instrumental witnesses.

WITNESS MY HAND AND NOTARIAL SEAL on the place and on the date first above written.

(Notary Public)

Until _____
PTR No. _____
Date _____
Place _____
TIN _____
IBP _____

Doc. No. ;
Page No. ;
Book No. ;
Series of 20__.

Note: The competent evidence of identity for Notary shall comply with Sec. 12 (a), Rule II of the 2004 Rules on Notarial Practice. "Sec. 12. Competent Evidence of Identity – The phrase "competent evidence of identity" refers to the identification of an individual based on at least one current identification document issued by an official agency bearing the photograph and signature of the individual, such as but not limited to, passport, driver's license, Professional Regulations Commission ID, National Bureau of Investigation clearance, police clearance, postal ID, voter's ID, Barangay certification, Government Service and Insurance System (GSIS) e-card, Social Security System (SSS) card, Philhealth card, senior citizen card, Overseas Workers Welfare Administration (OWWA) ID, OFW ID, seaman's book, alien certificate of registration/immigrant certificate of registration, government office ID, certification from the National Council for the Welfare of Disabled Persons (NCWDP), Department of Social Welfare and Development (DSWD) certification.

Section IX-H.

STATEMENT OF SINGLE LARGEST COMPLETED CONTRACT(SLCC)

[Date]

Dear _____,

In compliance with the eligibility requirements for the bidding of Design and Build Contract for PNR South Long Haul Project (Package 1, Banlic to Daraga, with reference No.: PNR-SLH CP01), this is to certify that [name and complete address of Bidder] has the following completed government and private contracts:

Tab No.	Name of Contract	Date of Contract	Contract Duration	Owner's Name and Address	Nature of Work	Contractor's Role (whether sole contractor, subcontractor or partner in a JV)	Total Contract Value at Award (in PhP)	Date of Completion	Total Contract Value at Completion, if applicable (in PhP)	Percentages of Planned & Actual Accomplishments, if applicable	Value of Outstanding Works, if applicable (in PhP)

Yours sincerely,

[Signature over printed name of Authorized Representative]

[Title]

[Name of Firm]